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(FILE 'HOME' ENTERED AT 11:53:35 ON 26 FEB 2004)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 11:53:45 ON 26 FEB 2004

E CEGDSGGPFV/SQEP  
L1 1 S E3  
E RGDA/SQEP  
L2 13 S E3  
E AGYKPDEGKRGDACEGDSGGPFV/SQEP  
L3 4 S E3  
E CEGDSGGPFV/SQEP  
L4 1 S E3  
E CEGDSGGPMV/SQEP  
E CEGDSGGPLV/SQEP  
E CEGDSGGPHV/SQEP  
E CEGDSGGPVV/SQEP  
E CQGDSGGPFV/SQEP  
E CQGDSGGPMV/SQEP  
E CQGDSGGPLV/SQEP  
E CQGDSGGPHV/SQEP  
E CQGDSGGPVV/SQEP  
E RGDACEGDSGGPFV/SQEP  
L5 10 S E3 OR E4 OR E5 OR E6 OR E7 OR E8 OR E9 OR E10 OR E11 OR E12  
L6 1 S THROMBIN/CN  
E SERINE ESTERASE/CN  
L7 1 S E3

FILE 'HCAPLUS' ENTERED AT 11:58:18 ON 26 FEB 2004

L8 36 S L1-L5  
L9 16658 S L6  
L10 31008 S THROMBIN  
L11 22 S L8 AND L9,L10  
L12 6282 S L7  
L13 617 S SERINE ESTERASE  
L14 16672 S SERINE() (PROTEASE OR PROTEINASE)  
L15 131 S SERINE() (ENDOPEPTIDASE OR ENDO PEPTIDASE)  
L16 164 S SERINE PEPTIDASE  
L17 4 S L8 AND L12-L16  
E CARTILAGE/CT  
L18 12893 S E3-E35  
E E3+ALL  
L19 16365 S E7+NT  
E E12+ALL  
L20 1451 S E5,E6,E4+NT  
E JOINT/CT  
L21 5545 S E11-E33  
E E11+ALL  
L22 10239 S E6,E5+NT  
E E12+ALL  
L23 2997 S E2  
L24 4 S L8 AND L18-L23  
L25 3 S L11,L17 AND L18-L23  
L26 4 S L24,L25  
E THROMBIN/CT  
E E4+ALL  
L27 1406 S E8,E7  
E ARTHRITIS/CT  
L28 13511 S E3-E25  
E E3+ALL  
L29 25068 S E5+NT  
L30 15 S L8 AND L27-L29

L31 36 S L8,L17,L26,L30  
 L32 18 S L31 AND (CARNEY D? OR CROWTHER R? OR STIERNBERG J? OR BERGMAN  
 L33 29 S L31 AND (PD<=20010720 OR PRD<=20010720 OR AD<=20010720)  
 L34 7 S L31,L32 NOT L33  
 L35 4 S L31 AND (?CARTIL? OR ?ARTHRI? CHONDROCYT? OR ?TRAUM?)  
 L36 5 S L31 AND (TRANSPLANT? OR PROSTHE?)  
 L37 7 S L31 AND (?GLYCOLIC? OR ?LACTIC? OR ?GLYCOLATE? OR ?LACTATE?)

FILE 'REGISTRY' ENTERED AT 12:11:47 ON 26 FEB 2004

L38 3 S 34346-01-5 OR 26100-51-6 OR 26124-68-5

FILE 'HCAPLUS' ENTERED AT 12:12:11 ON 26 FEB 2004

L39 6 S L38 AND L31

L40 4 S L31-L37,L39 AND L35

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 12:13:01 ON 26 FEB 2004

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FILE COVERS 1907 - 26 Feb 2004 VOL 140 ISS 9

FILE LAST UPDATED: 25 Feb 2004 (20040225/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 140 all tot

L40 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:41496 HCAPLUS

DN 140:105322

ED Entered STN: 18 Jan 2004

TI Therapeutic methods for the use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists

IN **Carney, Darrell H.**

PA The Board of Regents, the University of Texas System, USA

SO PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07K

CC 1-12 (Pharmacology)

FAN.CNT 1

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2004005317  | A2   | 20040115 | WO 2003-US20626 | 20030701 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, |      |          |                 |          |

PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,  
NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG

PRAI US 2002-393579P P 20020702

OS MARPAT 140:105322

AB Disclosed are **thrombin** peptide derivative dimers comprising two polypeptides having the amino acid sequence SEQ ID NO. 2: Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val, or a C-terminal truncated fragment of the polypeptide having at least six amino acids. Zero, one, two, or three amino acids in the polypeptide or polypeptide fragment differ from the corresponding position of SEQ ID NO. 2. Also disclosed are methods of treating a subject in need of treatment with a **thrombin** receptor agonist. The methods comprise the step of administering an effective amount of the **thrombin** peptide derivative described above.

ST **thrombin** peptide deriv dimer receptor agonist bone wound healing

IT **Thrombin receptors**

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(agonist; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Disulfide group

(binding **thrombin** peptide dimers; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT **Transplant and Transplantation**

(bone; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Bone, disease

(fracture, simple and nonunion; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Heart, disease

(injury; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Dimerization

(of **thrombin** peptides; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Artery, disease

(restenosis; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Bone, disease

(segmental gap and void; therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Bone formation

Cardiovascular agents

**Cartilage, disease**

**Cartilage formation**

Human

Protein sequences

Wound

Wound healing

Wound healing promoters

(therapeutic methods for use of **thrombin** peptide derivative dimers as **thrombin** receptor agonists)

IT Growth factors, animal

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)  
(therapeutic methods for use of **thrombin** peptide derivative  
dimers as **thrombin** receptor agonists)

IT Bone

(**transplant**; therapeutic methods for use of **thrombin**  
peptide derivative dimers as **thrombin** receptor agonists)

IT 9002-04-4, **Thrombin** 9002-04-4D,  
**Thrombin**, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(dimers; therapeutic methods for use of **thrombin** peptide  
derivative dimers as **thrombin** receptor agonists)

IT 146367-84-2 497221-38-2 642984-25-6

642984-27-8 642984-29-0 642984-31-4

642984-33-6 642984-35-8 642984-37-0

642984-39-2 642984-41-6 642984-43-8 642984-45-0

642984-47-2 642984-49-4 642984-51-8 642984-53-0 642984-56-3

642984-58-5 642984-60-9 642984-64-3 642984-66-5 642984-68-7

642984-70-1 642984-72-3 642984-75-6 642984-78-9 642984-80-3

642984-82-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
(Biological study); USES (Uses)

(therapeutic methods for use of **thrombin** peptide derivative  
dimers as **thrombin** receptor agonists)

IT 121341-81-9 646119-57-5 646119-58-6 646119-59-7

646119-60-0 646119-61-1 646119-62-2

RL: PRP (Properties)

(unclaimed sequence; therapeutic methods for the use of  
**thrombin** peptide derivative dimers as **thrombin** receptor  
agonists)

L40 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:591029 HCAPLUS

DN 139:128057

ED Entered STN: 01 Aug 2003

TI Stimulation of bone growth and **cartilage** formation with  
**thrombin** peptide derivatives

IN **Carney, Darrell H.; Crowther, Roger S.; Simmons, David**  
**J.; Yang, Jinping; Redin, William R.; Stiernberg, Janet;**  
**Bergmann, John**

PA The Board of Regents, the University of Texas System, USA

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K038-48

ICS A61L027-12; A61L027-38; A61L027-46; A61L027-50; C12N005-06;  
C12N005-08; A61K035-32; A61P019-00

CC 1-12 (Pharmacology)

Section cross-reference(s): 9

FAN.CNT 1

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003061690   | A1   | 20030731 | WO 2002-US1451  | 20020117 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,<br>GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,<br>LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,<br>PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,<br>UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,<br>TJ, TM<br>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,<br>CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, |      |          |                 |          |

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI WO 2002-US1451 20020117

AB A method is disclosed for stimulating bone growth at a site in a subject in need of osteoinduction or **cartilage** repair. The method comprises administering a therapeutically effective amount of an agonist of the non-proteolytically activated **thrombin** receptor (NPAR) to the site. Also disclosed is a method of stimulating the proliferation and expansion of chondrocytes in vitro. The method comprises culturing chondrocytes in the presence of a stimulating amount of an NPAR agonist.

ST **thrombin** peptide bone growth stimulation **cartilage** repair; NPAR receptor agonist bone growth stimulation **cartilage** repair; chondrocyte proliferation NPAR receptor agonist **thrombin** peptide

IT **Thrombin receptors**  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (NPAR (non-proteolytically activated **thrombin** receptor); bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **Arthritis**  
 (arthritic joint; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **Joint, anatomical**  
 (arthritic; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Polymers, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (biodegradable, carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Bone formation  
 Drug delivery systems  
 (bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Peptides, biological studies  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **Transplant and Transplantation**  
 (bone; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Ceramics  
 (calcium phosphate ceramic paste, carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Collagens, biological studies  
 Fibrins  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Injury  
 (**cartilage** damage or loss due to **traumatic** injury; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Proteoglycans, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (chondrocyte, biosynthesis; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Animal tissue culture  
 Cell proliferation  
 (chondrocyte; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **Chondrocyte**  
 (culture; bone growth and **cartilage** formation stimulation

with **thrombin** peptide derivs.)

IT **Cartilage**  
(damage or loss; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Bone, disease  
(fracture; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Drug delivery systems  
(implants; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Drug delivery systems  
(injections; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Drug delivery systems  
(microparticles; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Drug delivery systems  
(microspheres; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Drug delivery systems  
(pastes, calcium phosphate ceramic paste, carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Bone  
(**transplant**; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Injury  
(**trauma**, **cartilage** damage or loss due to **traumatic** injury; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT Bone  
(void or segmental gap; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **9002-04-4, Thrombin**  
RL: BSU (Biological study, unclassified); BIOL (Biological study) (bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **121341-81-9, TP 508 497221-38-2 566137-83-5 566137-84-6**  
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **7778-18-9, Calcium sulfate 10103-46-5, Calcium phosphate 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 27083-66-5, Poly(propylene fumarate) 34346-01-5, Lactic acid-glycolic acid copolymer**  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

IT **113-00-8, Guanidine**  
RL: NUU (Other use, unclassified); USES (Uses) (guanidine-extracted allogenic carrier; bone growth and **cartilage** formation stimulation with **thrombin** peptide derivs.)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Athanasiou, K; US 5876452 A 1999

(2) Ben; WO 9908728 A 1999 HCAPLUS

(3) Bergmann, J; WO 0207748 A 2002 HCAPLUS

(4) Bi, L; JOURNAL OF BONE AND MINERAL RESEARCH, abstract SA203 2001, V16(suppl 1), PS261

- (5) Redin, W; WO 0205836 A 2002 HCAPLUS  
 (6) Schwartz, Z; US 6001352 A 1999 HCAPLUS  
 (7) Stiernberg, J; WOUND REPAIR AND REGENERATION, MOSBY-YEAR BOOK 2000, V8(3), P204 MEDLINE  
 (8) Wang, H; MOLECULAR BIOLOGY OF THE CELL, abstract 1263 2000, V11(suppl), P243a

L40 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:417578 HCAPLUS  
 DN 139:12258  
 ED Entered STN: 01 Jun 2003  
 TI Flowable osteogenic and chondrogenic compositions  
 IN Bruder, Scott; Clarke, Rhonda; Pedrozo, Hugo; Plouhar, Pamela Lynn  
 PA Depuy Products, Inc., USA  
 SO PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 1, 2

FAN.CNT 1

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003043576   | A2   | 20030530 | WO 2002-US36973 | 20021115 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM<br>RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG |      |          |                 |          |

PRAI US 2001-331610P P 20011120

AB The repair of a **cartilage** or bone defect is described using a flowable compns. including a chondrogenic agent or osteogenic agent and a biocompatible carrier that is more fluid at ambient temperature than at elevated

temperature The agent is selected from, e.g., estrogens, selective estrogen receptor modifiers, bisphosphonates, src-tyrosine kinase inhibitors, cathepsin K inhibitors, vacuolar ATPase inhibitors, statins, fluprostenol, vitamin D, and prostaglandins.

ST chondrogenic osteogenic agent carrier injection bone **cartilage** defect

IT Adhesives

(biol.; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Growth factors, animal

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (bone cell or chondrocyte-stimulating; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT **Transplant and Transplantation**

(bone marrow; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Polymers, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (carriers; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Antibodies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugates, tumor-specific, with toxins; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Imaging agents  
(contrast, radiog.; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Bone, disease  
**Cartilage**  
(defect; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Anticoagulants  
Antitumor agents  
Blood  
Blood cell  
Immunosuppressants  
Permeation enhancers  
Surfactants  
(flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Amino acids, biological studies  
Angiogenic factors  
Collagens, biological studies  
Cytokines  
Enzymes, biological studies  
Estrogens  
Fibronectins  
Hormones, animal, biological studies  
Interleukin 1  
Mineral elements, biological studies  
Nucleic acids  
Peptides, biological studies  
Prostaglandins  
Proteins  
Tumor necrosis factors  
Vitamins  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Drug delivery systems  
(injections; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Estrogen receptors  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(modifiers; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT Bone marrow  
(**transplant**; flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)

IT 50-36-2, Cocaine 57-27-2, Morphine, biological studies 69-72-7,  
Salicylic acid, biological studies 94-09-7, Benzocaine 103-90-2,  
Acetaminophen 137-58-6, Lidocaine 1306-06-5, Hydroxyapatite  
1406-16-2, Vitamin D 5104-49-4, Flurbiprofen 7758-87-4, Tricalcium  
phosphate 9002-72-6, Growth hormone 9004-32-4, Carboxymethyl cellulose  
9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose  
9005-38-3, Sodium alginate 10103-46-5, Dynafos 11138-66-2, Xanthan gum  
13598-36-2D, Phosphonic acid, alkylidenebis- derivs. 15687-27-1,  
Ibuprofen 22204-53-1, Naproxen 36322-90-4, Piroxicam 38396-39-3,  
Bupivacaine 40666-16-8, Fluprostenol 62683-29-8, Colony-stimulating  
factor 106392-12-5, Poloxamer 121341-81-9, Chrysalin  
127464-60-2, Vascular endothelial growth factor 533926-63-5, KRX 167  
533927-64-9, MP 52 (protein)  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(flowable compns. containing osteogenic and chondrogenic agent and biocompatible carrier)



IT 9028-35-7, NADPH-hydroxymethylglutaryl-CoA reductase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors, statins; flowable compns. containing osteogenic and  
 chondrogenic agent and biocompatible carrier)

IT 94716-09-3, Cathepsin K 141349-89-5, Src-tyrosine kinase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; flowable compns. containing osteogenic and chondrogenic agent  
 and biocompatible carrier)

IT 9000-83-3, ATPase  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (vacuolar, inhibitors; flowable compns. containing osteogenic and  
 chondrogenic agent and biocompatible carrier)

L40 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:89846 HCAPLUS  
 DN 136:145245  
 ED Entered STN: 01 Feb 2002  
 TI Stimulation of **cartilage** growth with agonists of the  
 non-proteolytically activated **thrombin** receptor  
 IN Carney, Darrell H.; Crowther, Roger S.;  
 Stiernberg, Janet; Bergmann, John  
 PA The Board of Regents, the University of Texas System, USA  
 SO PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K038-00  
 CC 1-10 (Pharmacology)

Section cross-reference(s): 9, 63

FAN.CNT 1

| PATENT NO.  | KIND | DATE         | APPLICATION NO. | DATE         |
|---|------|--------------|-----------------|--------------|
| WO 2002007748   | A2   | 20020131     | WO 2001-US22668 | 20010719 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |              |                 |              |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |              |                 |              |
| US 2002042373   | A1   | 20020411     | US 2001-909348  | 20010719 <-- |
| EP 1259598  | A2   | 20021127     | EP 2001-952846  | 20010719 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |              |                 |              |
| JP 2004504354   | T2   | 20040212     | JP 2002-513481  | 20010719 <-- |
| US 2002198154   | A1   | 20021226     | US 2002-50688   | 20020116 <-- |
| PRAI US 2000-219800P  | P    | 20000720 <-- |                 |              |
| US 2001-909348  | A1   | 20010719 <-- |                 |              |
| WO 2001-US22668   | W    | 20010719 <-- |                 |              |

OS MARPAT 136:145245

AB Disclosed is a method of stimulating **cartilage** growth, repair or regeneration at a site in a subject in need of such growth, repair or regeneration. The method comprises the step of administering a therapeutically effective amount of an agonist of the non-proteolytically activated **thrombin** receptor (NPAR) to the site. Also disclosed is a method of stimulating the proliferation and expansion of chondrocytes in vitro. The method comprises culturing chondrocytes in the presence of a stimulating amount of an NPAR agonist. The NPAR agonist TP508 (a **thrombin** peptide derivative) stimulated **cartilage** growth in rabbits.

ST **cartilage** growth nonproteolytically activated **thrombin**

- receptor agonist; chondrocyte proliferation culture NPAR agonist;  
**thrombin peptide TP508 stimulation cartilage growth**
- IT Cell proliferation  
 (chondrocytes; stimulation of **cartilage** growth with agonists  
 of non-proteolytically activated **thrombin** receptor)
- IT **Transplant and Transplantation**  
 (cultured chondrocytes; stimulation of **cartilage** growth with  
 agonists of non-proteolytically activated **thrombin** receptor)
- IT **Cartilage, disease**  
 (damage or loss; stimulation of **cartilage** growth with  
 agonists of non-proteolytically activated **thrombin** receptor)
- IT Drug delivery systems  
 (implants; stimulation of **cartilage** growth with agonists of  
 non-proteolytically activated **thrombin** receptor)
- IT **Arthritis**  
 (joint with; stimulation of **cartilage** growth with agonists of  
 non-proteolytically activated **thrombin** receptor)
- IT Drug delivery systems  
 (microspheres; stimulation of **cartilage** growth with agonists  
 of non-proteolytically activated **thrombin** receptor)
- IT **Thrombin receptors**  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (nonproteolytically-activated; stimulation of **cartilage**  
 growth with agonists of non-proteolytically activated **thrombin**  
 receptor)
- IT Animal tissue culture  
 (of chondrocytes; stimulation of **cartilage** growth with  
 agonists of non-proteolytically activated **thrombin** receptor)
- IT Peptides, biological studies  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (of **thrombin**, as agonists; stimulation of **cartilage**  
 growth with agonists of non-proteolytically activated **thrombin**  
 receptor)
- IT **Chondrocyte**  
 (proliferation and expansion; stimulation of **cartilage** growth  
 with agonists of non-proteolytically activated **thrombin**  
 receptor)
- IT Proteoglycans, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (stimulation of bovine chondrocyte synthesis of; stimulation of  
**cartilage** growth with agonists of non-proteolytically activated  
**thrombin** receptor)
- IT **Cartilage**  
 (stimulation of **cartilage** growth with agonists of  
 non-proteolytically activated **thrombin** receptor)
- IT Injury  
 (**trauma**, **cartilage** damage or loss due to;  
 stimulation of **cartilage** growth with agonists of  
 non-proteolytically activated **thrombin** receptor)
- IT **9002-04-4, Thrombin**  
 RL: BSU (Biological study, unclassified); PRP (Properties); THU  
 (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (peptide, as agonist; stimulation of **cartilage** growth with  
 agonists of non-proteolytically activated **thrombin** receptor)
- IT **26100-51-6, Polylactic acid 26124-68-5,**  
**Polyglycolic acid 34346-01-5**  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (pharmaceutical carrier; stimulation of **cartilage** growth with  
 agonists of non-proteolytically activated **thrombin** receptor)
- IT **13433-02-8D, fragment**  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(stimulation of **cartilage** growth with agonists of non-proteolytically activated **thrombin** receptor)

IT 37259-58-8, **Serine esterase**  
 RL: PRP (Properties)  
 (thrombin peptide derivative with conserved sequence of; stimulation of **cartilage** growth with agonists of non-proteolytically activated **thrombin** receptor)

IT 390773-29-2 393596-78-6  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (thrombin peptide derivative with conserved sequence of; stimulation of **cartilage** growth with agonists of non-proteolytically activated **thrombin** receptor)

IT 93674-98-7 393596-79-7  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (thrombin peptide derivative; stimulation of **cartilage** growth with agonists of non-proteolytically activated **thrombin** receptor)

=> s 131-137,139 not 140

L41 32 (L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L39) NOT L40

=> d bib abs hitrn tot retable

L41 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:785260 HCAPLUS  
 DN 139:286388  
 TI Thrombin derived peptides for regularizing thrombin receptor mediated cell stimulation and therapeutic use in wound healing  
 IN Carney, Darrell H.; Glenn, Kevin C.  
 PA The Board of Regents, University of Texas Syatems, USA; Pharmacia Corporation  
 SO U.S., 18 pp., Cont.-in-part of U.S. Ser. No. 538,504.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 2

|      | PATENT NO.        | KIND | DATE     | APPLICATION NO. | DATE         |
|------|-------------------|------|----------|-----------------|--------------|
| PI   | US 6630572        | B1   | 20031007 | US 2000-631137  | 20000802 <-- |
|      | US 5352664        | A    | 19941004 | US 1986-925201  | 19861031 <-- |
|      | US 5500412        | A    | 19960319 | US 1993-7173    | 19930121 <-- |
|      | US 6627731        | B1   | 20030930 | US 1995-538504  | 19950929 <-- |
| PRAI | US 1986-925201    | A3   | 19861031 |                 | <--          |
|      | US 1993-7173      | A1   | 19930121 |                 | <--          |
|      | US 1995-538504    | A2   | 19950929 |                 | <--          |
| OS   | MARPAT 139:286388 |      |          |                 |              |

AB Thrombin is now known to mediate a number of potent biol. effects on cells bearing high-affinity thrombin receptors. These effects depend, at least in part, upon receptor occupancy signals generated by thrombin's interaction with the high affinity thrombin receptor. The present inventors have formulated synthetic thrombin derivs. capable of selectively stimulating or inhibiting thrombin receptor occupancy signals. The stimulatory thrombin derivs. to bind to cell surface thrombin receptors and stimulate DNA synthesis in cells treated with non-mitogenic concns. of alpha-thrombin or phorbol myristate acetate. Thus, these peptides, which have both a thrombin receptor binding domain and a segment of amino acids with a sequence common to a number of **serine proteases**, appear to generate receptor-occupancy dependent mitogenic signals. The inhibitory derivs., which have no **serine esterase** conserved amino acid sequences bind to thrombin receptors without generating receptor-occupancy dependent mitogenic signals. This

invention describes the peptides and methods for using them to promote cell growth and wound healing or to inhibit scar formation, tissue adhesions, and tumor metastasis and angiogenesis.

IT 37259-58-8, **Serine esterase**

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(thrombin derived peptides for regularizing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

IT 146367-84-2

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thrombin fragment sequence; thrombin derived peptides for regularizing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

IT 93674-98-7

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thrombin receptor-binding domain fragment sequence; thrombin derived peptides for regularizing thrombin receptor mediated cell stimulation and therapeutic use in wound healing)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Asstov                     | 1978          |              | 539         | Khim Prir Soedin         | HCAPLUS            |
| Butowski                   | 1977          | 252          | 4942        | J Biol Chem              |                    |
| Carney                     | 1994          |              |             | US 5352664 A             | HCAPLUS            |
| Carney                     | 1996          |              |             | US 5500412 A             | HCAPLUS            |
| Carney                     | 1978          | 15           | 3141        | Cell                     |                    |
| Carney                     | 1978          | 14           | 811         | Cell                     | HCAPLUS            |
| Carney                     | 1985          | 42           | 479         | Cell                     | HCAPLUS            |
| Carney                     | 1984          | 26           | 181         | J Cell Biochem           | HCAPLUS            |
| Carney                     | 1984          | 26           | 181         | Journal of Cellular      | HCAPLUS            |
| Carney                     | 1986          | 12           | 231         | Seminars in Thrombos     | HCAPLUS            |
| Cioca                      | 1985          |              |             | US 4515637 A             | HCAPLUS            |
| Degen                      | 1983          | 22           | 2087        | Biochemistry             | HCAPLUS            |
| Fenton                     | 1981          | 370          | 468         | Annals New York Acad     | HCAPLUS            |
| Ginsberg                   | 1985          | 260          | 3931        | J Biol Chem              | HCAPLUS            |
| Glenn                      | 1980          | 255          |             | J Biol Chem              |                    |
| Hayman                     | 1985          | 100          | 1948        | The Journal of Cell      | HCAPLUS            |
| Humphries                  | 1986          | 23           | 467         | Science                  |                    |
| Perdue                     | 1981          | 256          | 2767        | Journal of Biologica     | HCAPLUS            |
| Pierschbacher              | 1985          | 28           | 115         | Journal of Cellular      | HCAPLUS            |
| Pierschbacher              | 1984          | 309          | 30          | Nature                   | HCAPLUS            |
| Pierschbacher              | 1984          | 81           | 5985        | Proc Nat Acad Sci US     | HCAPLUS            |
| Rouslahti                  | 1985          | 5            | 581         | Arteriosclerosis         |                    |
| Rouslahti                  | 1986          | 44           | 517         | Cell                     |                    |
| Ruoslahti                  | 1985          |              |             | US 4517686 A             | HCAPLUS            |
| Ruoslahti                  | 1986          |              |             | US 4578079 A             | HCAPLUS            |
| Ruoslahti                  | 1991          |              |             | US 4988621 A             |                    |
| Stroetmann                 | 1984          |              |             | US 4427651 A             | HCAPLUS            |
| Zimmerman                  | 1987          |              |             | US 4683291 A             | HCAPLUS            |
| Zimmermann                 | 1986          |              |             | US 4606337 A             | HCAPLUS            |

L41 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:603900 HCAPLUS

DN 139:148476

TI Synthetic peptides derived from the PART thrombin receptor as chemotactic agents for neutrophils

IN Carney, Darrell H.; Ramakrishnan, Shyam

PA Chrysalis Biotechnology, USA

SO U.S., 14 pp., Cont.-in-part of U.S. 6,184,342.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE         |
|------|----------------|------|----------|-----------------|--------------|
| PI   | US 6602978     | B1   | 20030805 | US 2000-644038  | 20000822 <-- |
|      | US 6184342     | B1   | 20010206 | US 1994-330594  | 19941028 <-- |
| PRAI | US 1994-330594 | A2   | 19941028 | <--             |              |

AB Synthetic peptides derived from the proteolytically activated receptor for thrombin which are potent chemotactic agents for human neutrophils, are described for use in the therapeutic induction of neutrophil chemotaxis. The specificity of these peptides is amino acid sequence specific for binding to a heretofore unidentified receptor on the surface of neutrophils. Neutrophil response to this peptide is specific, since monocytes and fibroblasts do not show any expression of this receptor. Antibodies against these peptides block the chemotactic response. Such antibodies are useful to modulate neutrophil recruitment to a wound site for enhancing or inhibiting inflammation and early effects of wound healing.

IT 121341-81-9

RL: PRP (Properties)

(unclaimed sequence; synthetic peptides derived from the PART thrombin receptor as chemotactic agents for neutrophils)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Anon                       | 1992          |              |             | WO 9214750               | HCAPLUS            |
| Bowie, J                   | 1990          | 247          | 1306        | Science                  | HCAPLUS            |
| Burgess                    | 1990          | 111          | 2129        | J Cell Bio               | HCAPLUS            |
| Burgess, W                 | 1990          | 111          | 2129        | J Cell Biol              | HCAPLUS            |
| Coughlin                   | 1993          |              |             | US 5256766 A             | HCAPLUS            |
| Coughlin                   | 1997          |              |             | US 5688768 A             | HCAPLUS            |
| Coughlin                   | 1998          |              |             | US 5759994 A             | HCAPLUS            |
| Coughlin                   | 1998          |              |             | US 5798248 A             | HCAPLUS            |
| Coughlin                   | 1998          |              |             | US 5849507 A             | HCAPLUS            |
| Lazar                      | 1988          | 8            | 1247        | Mol and Cell Biol        | HCAPLUS            |
| Lazar, E                   | 1988          | 8            | 1247        | Mol Cell Biol            | HCAPLUS            |
| Sundelin                   | 1997          |              |             | US 5629174 A             | HCAPLUS            |
| Sundelin                   | 1998          |              |             | US 5716789 A             | HCAPLUS            |
| Sundelin                   | 1998          |              |             | US 5763575 A             | HCAPLUS            |

L41 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:591028 HCAPLUS

DN 139:128022

TI Thrombin-derived peptides for promoting cardiac tissue repair

IN Carney, Darrell H.

PA The Board of Regents, the University of Texas System, USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|    | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|----|--|------|----------|-----------------|----------|
| PI | WO 2003061689  | A1   | 20030731 | WO 2002-US1396  | 20020116 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,<br>CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,<br>GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,<br>LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,<br>PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,<br>UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, |      |          |                 |          |

TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI WO 2002-US1396 20020116

AB The invention provides a method for promoting cardiac tissue repair and/or inhibiting or reducing vascular occlusion or restenosis, comprising administering to the cardiac tissue a therapeutically effective amount of an angiogenic thrombin derivative peptide. The invention also provides methods for stimulating revascularization. In yet another embodiment, the invention discloses the use of thrombin derivative peptides in the manufacture of a

medicament for the methods described.

IT 34346-01-5, Lactic acid-glycolic acid copolymer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(microparticles; thrombin-derived peptides for promoting cardiac tissue repair)

IT 37259-58-8, Serine esterase

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(serine esterase conserved sequence;  
thrombin-derived peptides for promoting cardiac tissue repair)

IT 93674-98-7

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study)  
(thrombin-derived peptides for promoting cardiac tissue repair)

IT 121341-81-9 497221-38-2 566137-83-5  
566137-84-6

RL: DEV (Device component use); PAC (Pharmacological activity); PRP  
(Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(thrombin-derived peptides for promoting cardiac tissue repair)

## RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Norfleet, A                | 2000          | 35           | 249         | GENERAL PHARMACOLOGY     | HCAPLUS            |
| Stiernberg, J              | 2000          | 8            | 204         | WOUND REPAIR AND REG     | MEDLINE            |
| Univ Texas                 | 1988          |              |             | WO 8803151 A             | HCAPLUS            |
| Univ Texas                 | 2002          |              |             | WO 0204008 A             | HCAPLUS            |

L41 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:395944 HCAPLUS

DN 139:191912

TI PAR1-dependent and independent increases in COX-2 and PGE2 in human colonic myofibroblasts stimulated by thrombin

AU Seymour, Michelle L.; Zaidi, Nosheen F.; Hollenberg, Morley D.; MacNaughton, Wallace K.

CS Mucosal Inflammation Research Group, University of Calgary, Calgary, AB, T2N 4N1, Can.

SO American Journal of Physiology (2003), 284(5, Pt. 1), C1185-C1192  
CODEN: AJPHAP; ISSN: 0002-9513

PB American Physiological Society

DT Journal

LA English

AB Subepithelial myofibroblast-derived prostaglandin E2 (PGE2) regulates epithelial chloride secretion in the intestine. Thrombin is elevated in inflammatory conditions of the bowel. Therefore, we sought to determine a role for thrombin in regulating PGE2 synthesis by colonic myofibroblasts. Incubation of cultured CCD-18Co colonic myofibroblasts with thrombin, the proteinase-activated receptor 1 (PAR1)-activating peptide (Cit-NH2), and peptides corresponding to 2 noncatalytic regions of thrombin (TP367 and TP508) for 18 h increased both cyclooxygenase (COX)-2 expression (immunocytochem.) and PGE2 synthesis (enzyme immunoassay). Inhibition of

thrombin by D-Phe-Pro-Arg-chloromethylketone (PPACK) did not significantly reduce PGE2 synthesis, which remained elevated compared with control. We also investigated the basic fibroblast growth factor (bFGF) dependence of thrombin-induced PGE2 elevations. Recombinant human bFGF concentration dependently increased PGE2 synthesis, and a bFGF neutralizing antibody inhibited PGE2 synthesis induced by TP367 and TP508 (.apprx.40%) and by thrombin (.apprx.20%) (but not Cit-NH2). Thrombin, therefore, upregulates COX-2-derived PGE2 synthesis by both catalytic cleavage of PAR1 and bFGF-dependent noncatalytic activity. This presents a novel mechanism by which intestinal myofibroblasts might regulate epithelial chloride secretion.

IT 121341-81-9, TP 508

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(non-catalytic fragment of thrombin; PAR1-dependent and independent increases in COX-2 and PGE2 in human colonic myofibroblasts stimulated by thrombin)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| =====                      | =====         | =====        | =====       | =====                    | =====              |
| Bagdy, D                   | 1976          | 45           | 669         | Methods Enzymol          | HCAPLUS            |
| Bahou, W                   | 1993          | 82           | 1532        | Blood                    | HCAPLUS            |
| Bar-Shavit, I              | 1984          | 23           | 397         | Biochemistry             |                    |
| Bar-Shavit, R              | 1986          | 485          | 335         | Ann NY Acad Sci          | MEDLINE            |
| Bar-Shavit, R              | 1995          | 31           | 86          | Isr J Med Sci            | MEDLINE            |
| Bar-Shavit, R              | 1991          | 112          | 335         | J Cell Biol              | HCAPLUS            |
| Bar-Shavit, R              | 1993          | 123          | 1279        | J Cell Biol              | HCAPLUS            |
| Bar-Shavit, R              | 1986          | 83           | 976         | Proc Natl Acad Sci U     | HCAPLUS            |
| Bar-Shavit, R              | 1983          | 220          | 728         | Science                  | HCAPLUS            |
| Bern, M                    | 1989          | 83           | 1810        | J Clin Invest            | HCAPLUS            |
| Berschneider, H            | 1992          | 89           | 484         | J Clin Invest            | HCAPLUS            |
| Bing, D                    | 1981          | 370          | 496         | Ann NY Acad Sci          | HCAPLUS            |
| Bing, D                    | 1986          | 485          | 104         | Ann NY Acad Sci          | MEDLINE            |
| Bode, W                    | 1989          | 8            | 3467        | EMBO J                   | HCAPLUS            |
| Boughton-Smith, N          | 1993          | 110          | 1189        | Br J Pharmacol           | HCAPLUS            |
| Buresi, M                  | 2001          | 281          | G323        | Am J Physiol Gastroi     | HCAPLUS            |
| Carney, D                  | 1986          | 12           | 231         | Semin Thromb Hemost      | HCAPLUS            |
| Chamouard, P               | 1995          | 7            | 1183        | Eur J Gastroenterol      | MEDLINE            |
| Coughlin, S                | 1999          | 96           | 11023       | Proc Natl Acad Sci U     | HCAPLUS            |
| Derian, C                  | 1997          | 232          | 1           | Exp Cell Res             | HCAPLUS            |
| Ellis, C                   | 1999          | 274          | 13718       | J Biol Chem              | HCAPLUS            |
| Gordon, E                  | 1986          | 141          | 650         | Biochem Biophys Res      | HCAPLUS            |
| Grandaliano, G             | 2000          | 11           | 1016        | J Am Soc Nephrol         | HCAPLUS            |
| Herbert, J                 | 1994          | 303          | 227         | Biochem J                | HCAPLUS            |
| Hinterleitner, T           | 1996          | 271          | C1262       | Am J Physiol Cell Ph     | HCAPLUS            |
| Hollenberg, M              | 1996          | 169          | 491         | J Cell Physiol           | HCAPLUS            |
| Kage, K                    | 1999          | 254          | 259         | Biochem Biophys Res      | HCAPLUS            |
| Kawaguchi, H               | 1995          | 96           | 923         | J Clin Invest            | HCAPLUS            |
| Komuro, T                  | 1990          | 53           | 1           | Arch Histol Cytol        | MEDLINE            |
| Laszlo, F                  | 1994          | 113          | 1131        | Br J Pharmacol           | HCAPLUS            |
| Peterson, J                | 1989          | 245          | 857         | Science                  | HCAPLUS            |
| Rasmussen, U               | 1991          | 288          | 123         | FEBS Lett                | HCAPLUS            |
| Sasaki, E                  | 1998          | 27           | S21         | J Clin Gastroenterol     |                    |
| Sower, L                   | 1999          | 247          | 422         | Exp Cell Res             | HCAPLUS            |
| Stadnicki, A               | 1997          | 42           | 2356        | Dig Dis Sci              | MEDLINE            |
| Stiernberg, J              | 2000          | 8            | 204         | Wound Repair Regen       | MEDLINE            |
| Tanioka, T                 | 2000          | 275          | 32775       | J Biol Chem              | HCAPLUS            |
| Valentich, J               | 1997          | 272          | C1513       | Am J Physiol Cell Ph     | HCAPLUS            |
| Vouret-Craviari, V         | 1993          | 289          | 209         | Biochem J                | HCAPLUS            |
| Vu, T                      | 1991          | 64           | 1057        | Cell                     | HCAPLUS            |
| Wadleigh, D                | 1999          | 264          | 865         | Biochem Biophys Res      | HCAPLUS            |
| Weiss, R                   | 1993          | 268          | 5724        | J Biol Chem              | HCAPLUS            |

L41 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:133077 HCAPLUS  
 DN 138:180761  
 TI Methods for promoting healing of chronic dermal ulcers  
 IN **Carney, Darrell H.**  
 PA The Board of Regents, the University of Texas System, USA  
 SO PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 2003013569   | A2   | 20030220 | WO 2002-US1151  | 20020116 |
| WO 2003013569   | A3   | 20031211 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |          |

PRAI US 2001-308198P P 20010727  
 AB Disclosed is a method of promoting healing of a chronic dermal skin ulcer, such as a diabetic ulcer, in a subject. The method comprises the step of contacting the chronic dermal skin ulcer with an effective amount of an agonist of the non-proteolytically activated thrombin receptor.  
 IT **497221-38-2**  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (thrombin receptor agonists promoting healing of chronic dermal ulcers resulting from diabetes)

L41 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:912091 HCAPLUS  
 DN 139:138483  
 TI Controlled release of an osteogenic peptide from injectable biodegradable polymeric composites  
 AU Hedberg, Elizabeth L.; Tang, Andrew; **Crowther, Roger S.**;  
**Carney, Darrell H.**; Mikos, Antonios G.  
 CS Department of Bioengineering, Rice University, Houston, TX, 77251-1892, USA  
 SO Journal of Controlled Release (2002), 84(3), 137-150  
 CODEN: JCREEC; ISSN: 0168-3659  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 AB Poly(D,L-lactic-co-glycolic acid)/poly(ethylene glycol) (PLGA/PEG) blend microparticles loaded with the osteogenic peptide TP508 were added to a mixture of poly(propylene fumarate) (PPF), poly(propylene fumarate)-diacrylate (PPF-DA), and sodium chloride (NaCl) for the fabrication of PPF composite scaffolds that could allow for tissue ingrowth as well as for the controlled release of TP508 when implanted in an orthopedic defect site. In this study, PPF composites were fabricated and the in vitro release kinetics of TP508 were determined TP508 loading within the PLGA/PEG microparticles, PEG content within the PLGA/PEG microparticles, the microparticle content of the PPF composite polymer component, and the leachable porogen initial mass percent of the PPF composites were varied according to a fractional factorial design and the effect of each variable on the release kinetics was determined for up to 28



days. Each composite formulation released TP508 with a unique release profile. The initial release (release through day 1) of the PLGA/PEG microparticles was reduced upon inclusion in the PPF composite formulations. Day 1 normalized cumulative mass release from PPF composites ranged from  $0.14 \pm 0.01$  to  $0.41 \pm 0.01$ , whereas the release from PLGA/PEG microparticles ranged from  $0.31 \pm 0.02$  to  $0.58 \pm 0.01$ . After 28 days, PPF composites released 53 $\pm$ 4% to 86 $\pm$ 2% of the entrapped peptide resulting in cumulative mass releases ranging from  $0.14 \pm 0.01$   $\mu$ g TP508/mm<sup>3</sup> scaffold to  $2.46 \pm 0.05$   $\mu$ g TP508/mm<sup>3</sup> scaffold. The results presented here demonstrate that PPF composites can be used for the controlled release of TP508 and that alterations in the composite's composition can lead to modulation of the TP508 release kinetics. These composites can be used to explore the effects varied release kinetics and dosages on the formation of bone in vivo.

IT 34346-01-5, Lactic acid-glycolic acid copolymer

RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(blend; controlled release of osteogenic peptide from injectable biodegradable polymeric composites)

IT 121341-81-9, TP 508

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(controlled release of osteogenic peptide from injectable biodegradable polymeric composites)

# RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Anderson, J                | 1997          | 28           | 5           | Adv Drug Del Rev         | HCAPLUS            |
| Athanasίου, K              | 1996          | 17           | 93          | Biomaterials             | HCAPLUS            |
| Babensee, J                | 2000          | 17           | 497         | Pharm Res                | HCAPLUS            |
| Box, G                     | 1978          |              |             | Statistics for Exper     |                    |
| Buck, B                    | 1989          | 240          | 129         | Clin Orthop              |                    |
| Cleek, R                   | 1997          | 35           | 525         | J Biomed Mater Res       | HCAPLUS            |
| Cleek, R                   | 1997          | 48           | 258         | J Controlled Release     |                    |
| Fisher, J                  | 2001          | 12           | 673         | J Biomat Sci Polym E     | HCAPLUS            |
| Fisher, J                  | 2002          | 59           | 547         | J Biomed Mater Res       | HCAPLUS            |
| He, S                      | 2000          | 21           | 2389        | Biomaterials             | HCAPLUS            |
| He, S                      | 2001          | 42           | 1251        | Polymer                  | HCAPLUS            |
| Hollinger, J               | 1996          | 15           | 187         | Biomaterials             |                    |
| Isobe, M                   | 1996          | 32           | 433         | J Biomed Mater Res       | HCAPLUS            |
| Jain, R                    | 2000          | 21           | 2475        | Biomaterials             | HCAPLUS            |
| Lewandrowski, K            | 2000          | 21           | 293         | Biomaterials             | HCAPLUS            |
| Lo, H                      | 1995          | 1            | 15          | Tissue Eng               | HCAPLUS            |
| Lu, L                      | 2000          | 50           | 440         | J Biomed Mater Res       | HCAPLUS            |
| Lucke, A                   | 2002          | 19           | 175         | Pharm Res                | HCAPLUS            |
| Murphy, W                  | 2000          | 21           | 2521        | Biomaterials             | HCAPLUS            |
| Peter, S                   | 2000          | 21           | 1207        | Biomaterials             | HCAPLUS            |
| Peter, S                   | 1998          | 41           | 1           | J Biomed Mater Res       | HCAPLUS            |
| Peter, S                   | 1999          | 44           | 314         | J Biomed Mater Res       | HCAPLUS            |
| Peter, S                   | 1997          | 3            | 207         | Tissue Eng               | HCAPLUS            |
| Ryaby, J                   | 2002          |              |             | Presented at 48th An     |                    |
| Sheridan, M                | 2000          | 64           | 91          | J Controlled Release     | HCAPLUS            |
| Shung, A                   | 2002          | 13           | 95          | J Biomater Sci Polym     | HCAPLUS            |
| Smith, J                   | 1995          | 36           | 183         | J Controlled Release     | HCAPLUS            |
| Sower, L                   | 1999          | 247          | 422         | Exp Cell Res             | HCAPLUS            |
| Stiernberg, J              | 1993          | 70           | 158         | Thromb Haemost           | HCAPLUS            |
| Urist, M                   | 1979          | 76           | 1828        | Proc Natl Acad Sci U     | HCAPLUS            |
| Vehof, J                   | 2002          | 60           | 241         | J Biomed Mater Res       | HCAPLUS            |
| Whang, K                   | 2000          | 21           | 2545        | Biomaterials             | HCAPLUS            |
| Wilner, G                  | 1981          | 97           | 403         | J Lab Clin Med           | HCAPLUS            |
| Winn, S                    | 1998          | 31           | 303         | Adv Drug Del Rev         | HCAPLUS            |
| Wozney, J                  | 1990          | 13           | 149         | J Cell Sci               |                    |

|              |      |     |      |                   |         |
|--------------|------|-----|------|-------------------|---------|
| Yasko, A     | 1992 | 74A | 659  | J Bone Joint Surg |         |
| Yaszemski, M | 1996 | 17  | 175  | Biomaterials      | HCAPLUS |
| Yaszemski, M | 1995 | 1   | 41   | Tissue Eng        | HCAPLUS |
| Zegzula, H   | 1997 | 79A | 1778 | J Bone Joint Surg |         |

L41 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:309818 HCAPLUS

DN 136:336176

TI Compositions containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections

IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Schifferli, Kevin P.; Gebeyehu, Gulilat; Ciccarone, Valentina C.; Evans, Krista L.

PA Life Technologies, Inc., USA

SO U.S., 108 pp., Cont.-in-part of U.S. 6,051,429.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 5

|      | PATENT NO.     | KIND | DATE         | APPLICATION NO. | DATE         |
|------|----------------|------|--------------|-----------------|--------------|
| PI   | US 6376248     | B1   | 20020423     | US 1998-39780   | 19980316 <-- |
|      | US 6051429     | A    | 20000418     | US 1997-818200  | 19970314 <-- |
|      | US 2003069173  | A1   | 20030410     | US 2001-911569  | 20010723 <-- |
|      | US 2003144230  | A1   | 20030731     | US 2002-200879  | 20020723 <-- |
| PRAI | US 1997-818200 | A2   | 19970314 <-- |                 |              |
|      | US 1995-477354 | B2   | 19950607 <-- |                 |              |
|      | US 1996-658130 | A2   | 19960604 <-- |                 |              |
|      | US 1998-39780  | A1   | 19980316 <-- |                 |              |
|      | US 2001-911569 | A1   | 20010723     |                 |              |

AB The present invention provides compns. useful for transfecting cells comprising nucleic acid complexes with Tat peptide, wherein the peptide is covalently coupled to a nucleic acid-binding group, and cationic lipids as transfection agents. Inclusion of peptides in transfection compns. or covalent attachment of peptides to transfection agents results in enhanced transfection efficiency. Methods for the preparation of transfection compns. and methods of using these transfection compns. as intracellular delivery agents are also disclosed.

IT 93674-98-7

RL: PRP (Properties)

(unclaimed sequence; compns. containing DNA, Tat peptide-nucleic acid binder conjugates, and cationic lipids for cell transfections)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Anon                       | 1987          |              |             | WO 8702061               | HCAPLUS            |
| Anon                       | 1988          |              |             | EP 0304111 B1            | HCAPLUS            |
| Anon                       | 1989          |              |             | EP 0359347 B1            | HCAPLUS            |
| Anon                       | 1990          |              |             | EP 0359347               | HCAPLUS            |
| Anon                       | 1990          |              |             | WO 9009786               | HCAPLUS            |
| Anon                       | 1991          |              |             | WO 9104753               | HCAPLUS            |
| Anon                       | 1991          |              |             | WO 9107947               | HCAPLUS            |
| Anon                       | 1991          |              |             | WO 9115501               | HCAPLUS            |
| Anon                       | 1991          |              |             | WO A9116024              |                    |
| Anon                       | 1992          |              |             | EP 0544292               | HCAPLUS            |
| Anon                       | 1992          |              |             | WO 9213570               | HCAPLUS            |
| Anon                       | 1992          |              |             | WO 9221752               | HCAPLUS            |
| Anon                       | 1992          |              |             | WO 9222635               | HCAPLUS            |
| Anon                       | 1992          |              |             | AU B2652692              |                    |
| Anon                       | 1993          |              |             | WO 9305162               | HCAPLUS            |
| Anon                       | 1993          |              |             | WO 9307282               | HCAPLUS            |
| Anon                       | 1993          |              |             | WO 9307283               | HCAPLUS            |

|                  |      |      |       |                      |         |
|------------------|------|------|-------|----------------------|---------|
| Anon             | 1993 |      |       | WO 9319768           | HCAPLUS |
| Anon             | 1994 |      |       | WO 9404696           | HCAPLUS |
| Anon             | 1994 |      |       | WO 9423751           | HCAPLUS |
| Anon             | 1995 |      |       | WO 9502397           | HCAPLUS |
| Anon             | 1995 |      |       | WO 9517373           | HCAPLUS |
| Anon             | 1995 |      |       | WO 9524221           | HCAPLUS |
| Anon             | 1995 |      |       | WO 9531557           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9601841           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9605218           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9610038           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9615811           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9622321           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9622765           | HCAPLUS |
| Anon             | 1996 |      |       | WO 9631549           | HCAPLUS |
| Anon             | 1993 |      | 12    | Genet Eng News       |         |
| Aumailley, M     | 1989 | 181  | 463   | Exp Cell Res         | HCAPLUS |
| Behr, J          | 1993 | 26   | 274   | Accounts of Chemical | HCAPLUS |
| Behr, J          | 1989 | 86   | 6982  | Proc Natl Acad Sci U | HCAPLUS |
| Beug             | 1994 |      |       | US 5354844 A         | HCAPLUS |
| Bielinska, A     | 1996 | 24   | 2176  | Nucl Acids Res       | HCAPLUS |
| Bonifaci, N      | 1995 | 9    | 995   | AIDS                 | HCAPLUS |
| Boutin           | 1998 |      |       | US 5837533 A         | HCAPLUS |
| Braunlin         |      | 21   | 1301  | Biopolymers          | HCAPLUS |
| Carrasco, L      | 1982 | 117  | 62    | J Virol              | HCAPLUS |
| Ciccarone        | 1993 | 7    | A1131 | FASEB J, Abstracts,  |         |
| Ciccarone        |      | 17   | 84    | Focus                |         |
| Citovsky, V      | 1992 | 256  | 1802  | Science              | HCAPLUS |
| Cotten, M        | 1990 | 87   | 4033  | Proc Natl Acad Sci   | HCAPLUS |
| Cotton           | 1992 | 89   | 6094  | Proc Natl Acad Sci U |         |
| Curiel           | 1996 |      |       | US 5547932 A         | HCAPLUS |
| Curiel, D        | 1992 | 6    | 247   | Am J Respir Cell Mol | HCAPLUS |
| Curiel, D        | 1992 | 3    | 147   | Hum Gene Therapy     | MEDLINE |
| Curiel, D        | 1991 | 88   | 8850  | Proc Natl Acad Sci U | HCAPLUS |
| Dayhoff, M       | 1978 | 5    | 345   | Atlas of Protein Seq |         |
| Dedhar, S        | 1987 | 104  | 585   | J Cell Biol          | HCAPLUS |
| Demeneix, B      | 1991 | 35   | 481   | Int J Dev Biol       | HCAPLUS |
| Deroberties      | 1978 | 272  | 254   | Nature               |         |
| Dingwall         | 1989 | 86   | 6925  | Proc Natl Acad Sci U | HCAPLUS |
| Dingwall, C      | 1991 | 16   | 478   | TIBS                 | HCAPLUS |
| Dwarki, V        | 1993 | 217  | 644   | Methods in Enzymolog | HCAPLUS |
| Epand            | 1992 | 32   | 309   | Biopolymers          | HCAPLUS |
| Eppstein         | 1990 |      |       | US 4897355 A         |         |
| Eppstein         | 1990 |      |       | US 4946787 A         | HCAPLUS |
| Eytan, G         | 1982 | 694  | 185   | Biochem Biophys Acta | HCAPLUS |
| Fawell, S        | 1994 | 91   | 664   | Proc Natl Acad Sci U | HCAPLUS |
| Feldhaus         | 1998 |      |       | US 5759805 A         | HCAPLUS |
| Felgner, P       | 1989 | 337  | 387   | Nature               | MEDLINE |
| Felgner, P       | 1987 | 84   | 7413  | Proc Natl Acad Sci U | HCAPLUS |
| Finlay, D        | 1989 |      | 225   | J Cell Sci           |         |
| Fitzgerald, D    | 1983 | 32   | 607   | Cell                 | HCAPLUS |
| Flotte           | 1997 |      |       | US 5658776 A         | HCAPLUS |
| Frankel, A       | 1989 | 86   | 7397  | Proc Natl Acad Sci U | HCAPLUS |
| Frechet          | 1996 |      |       | US 5587441 A         | HCAPLUS |
| Frechet          | 1996 |      |       | US 5587446 A         | HCAPLUS |
| Friedlander, D   | 1988 | 107  | 2329  | J Cell Biol          | HCAPLUS |
| Gao              | 1998 |      |       | US 5795587 A         | HCAPLUS |
| Gao, X           | 1991 | 179  | 280   | Biochem and Biophys  | HCAPLUS |
| Gao, X           | 1996 | 35   | 1027  | Biochemistry         | HCAPLUS |
| Garcia-Bustos, J | 1991 | 1071 | 83    | Biochimica et Biophy | HCAPLUS |
| Gardner, J       | 1985 | 42   | 439   | Cell                 | HCAPLUS |
| Gebeyehu         | 1994 |      |       | US 5334761 A         | HCAPLUS |
| Goldfarb, D      | 1986 | 322  | 641   | Nature               | HCAPLUS |
| Goldfarb, D      | 1991 | 1    | 20    | Trends in Cell Biolo | HCAPLUS |

|                   |      |      |       |                      |         |
|-------------------|------|------|-------|----------------------|---------|
| Gopal             | 1997 |      |       | US 5670347 A         | HCAPLUS |
| Gould-Fogerite, S | 1989 | 84   | 429   | Gene                 | HCAPLUS |
| Grant, D          | 1989 | 58   | 933   | Cell                 | HCAPLUS |
| Haces             | 1997 |      |       | US 5674908 A         | HCAPLUS |
| Haensler, J       | 1993 | 4    | 372   | Bioconjugate Chem    | HCAPLUS |
| Hagstrom, J       | 1996 | 1284 | 47    | Biochem Biophys Acta | HCAPLUS |
| Harbottle, R      | 1995 |      |       | Keystone Symposium o |         |
| Haverstick, D     | 1986 | 86   | 946   | Blood                |         |
| Hawley-Nelson     | 1998 |      |       | US 5736392 A         | HCAPLUS |
| Hawley-Nelson, P  | 1993 | 15   | 17    | Focus                |         |
| Hedstrand         | 1996 |      |       | US 5560929 A         | HCAPLUS |
| Huckett, B        | 1990 | 40   | 253   | Biochem Pharmacology | HCAPLUS |
| Humphries, M      | 1987 | 262  | 6886  | J Biol Chem          | HCAPLUS |
| Humphries, M      | 1986 | 103  | 2637  | J Cell Biol          | HCAPLUS |
| Ito, A            | 1990 | 22   | 235   | Biochem Internatl    | HCAPLUS |
| Jessee            | 1996 |      |       | US 5578475 A         | HCAPLUS |
| Johnston          | 1996 |      |       | US 5532142 A         | HCAPLUS |
| Kalderon          | 1984 | 39   | 499   | Cell                 | HCAPLUS |
| Kamata, H         | 1994 | 22   | 536   | Nucl Acids Res       | HCAPLUS |
| Kaneda, Y         | 1989 | 243  | 375   | Science              | HCAPLUS |
| Karlsson, S       | 1985 | 82   | 158   | Proc Natl Acad Sci U | HCAPLUS |
| Lanford, R        | 1990 | 186  | 32    | Exp Cell Res         | HCAPLUS |
| Ledley, F         | 1991 | 2    | 77    | Human Gene Therapy   | MEDLINE |
| Legendre, J       | 1992 | 9    | 1235  | Pharm Res            | HCAPLUS |
| Legendre, J       | 1993 | 90   | 893   | Proc Natl Acad Sci U | HCAPLUS |
| Lockett           | 1998 |      |       | US 5854224 A         | HCAPLUS |
| Loyter, A         | 1982 | 79   | 422   | Proc Natl Acad Sci U | HCAPLUS |
| Malone, R         | 1989 | 86   | 6077  | Proc Natl Acad Sci U | HCAPLUS |
| Meyer             | 1996 |      |       | US 5574142 A         | HCAPLUS |
| Parente, R        | 1990 | 29   | 8713  | Biochemistry         | HCAPLUS |
| Parente, R        | 1990 | 29   | 8720  | Biochemistry         | HCAPLUS |
| Paul              | 1998 |      |       | US 5736387 A         | HCAPLUS |
| Poste, G          | 1976 | 14   | 33    | Methods in Cell Biol | HCAPLUS |
| Rosenkranz, A     | 1992 | 199  | 323   | Exp Cell Res         | MEDLINE |
| Schmid, N         | 1991 | 30   | 4357  | Biochemistry         | HCAPLUS |
| Short             | 1996 |      |       | US 5589392 A         | HCAPLUS |
| Silver, P         | 1991 | 64   | 489   | Cell                 | HCAPLUS |
| Smull, C          | 1962 | 84   | 1035  | J Bacteriology       | HCAPLUS |
| Sugawa, H         | 1985 | 159  | 410   | Exp Cell Res         | HCAPLUS |
| Suzuki, S         | 1985 | 4    | 2519  | EMBO J               | HCAPLUS |
| Szoka             | 1997 |      |       | US 5661025 A         | HCAPLUS |
| Taguchi           | 1993 |      |       | US 5198423 A         | HCAPLUS |
| Tang, M           | 1996 | 7    | 703   | Bioconjugate Chem    | HCAPLUS |
| Tikchonenko, T    | 1988 | 63   | 321   | Gene                 | MEDLINE |
| Tomalia           | 1994 |      |       | US 5338532 A         | HCAPLUS |
| Tomalia           | 1996 |      |       | US 5527524 A         | HCAPLUS |
| Tomalia           | 1998 |      |       | US 5714166 A         | HCAPLUS |
| Tomalia           | 1998 |      |       | US 5773527 A         | HCAPLUS |
| Trubetskoy, V     | 1992 | 3    | 323   | Bioconjugate Chem    | HCAPLUS |
| Vaananen          | 1980 | 46   | 467   | J Gen Virology       | MEDLINE |
| van Zee, K        | 1991 | 11   | 5137  | Mol and Cellular Bio | HCAPLUS |
| Vives, E          | 1997 | 272  | 16010 | J Biol Chem          | HCAPLUS |
| Wagner, E         | 1991 | 2    | 226   | Bioconjugate Chem    | HCAPLUS |
| Wagner, E         | 1990 | 87   | 3410  | Proc Natl Acad Sci U | HCAPLUS |
| Wagner, E         | 1992 | 89   | 6099  | Proc Natl Acad Sci U | HCAPLUS |
| Wagner, E         | 1992 | 89   | 7934  | Proc Natl Acad Sci U | HCAPLUS |
| Walker            | 1992 | 89   | 7915  | Proc Natl Acad Sci U | HCAPLUS |
| Wayner, E         | 1989 | 109  | 1321  | J Cell Biol          | HCAPLUS |
| Whittaker         | 1996 |      |       | US 5583198 A         | HCAPLUS |
| Whittaker         | 1999 |      |       | US 5906922 A         | HCAPLUS |
| Wickham, T        | 1995 | 2    | 750   | Gene Therapy         | HCAPLUS |
| Wilson, J         | 1992 | 267  | 963   | J Biol Chem          | HCAPLUS |
| Winnik            | 1993 |      |       | US 5266106 A         | HCAPLUS |

|           |      |      |       |                      |         |
|-----------|------|------|-------|----------------------|---------|
| Wolff, J  | 1990 | 247  | 1465  | Science              | HCAPLUS |
| Wu        | 1992 |      |       | US 5166320 A         | HCAPLUS |
| Wu, C     | 1989 | 265  | 16985 | J Biol Chem          |         |
| Wu, G     | 1988 | 27   | 887   | Biochemistry         | HCAPLUS |
| Wu, G     | 1988 | 263  | 14621 | J Biol Chem          | HCAPLUS |
| Wu, G     | 1991 | 266  | 14338 | J Biol Chem          | HCAPLUS |
| Yagi, K   | 1991 | 10   | 21    | J Clin Biochem Nutr  | HCAPLUS |
| Yin       | 1997 |      |       | US 5631329 A         | HCAPLUS |
| Yoshimura |      | 268  | 2300  | J Biol Chem          | HCAPLUS |
| Young     | 1983 | 128  | 186   | Virology             | HCAPLUS |
| Zenke, M  | 1990 | 87   | 3655  | Proc Natl Acad Sci U | HCAPLUS |
| Zhou, X   | 1991 | 1065 | 8     | Biochim Biophys Acta | HCAPLUS |
| Zhou, X   | 1994 | 1189 | 195   | Biochim Biophys Acta | HCAPLUS |
| Zhu, Z    | 1990 | 22   | 135   | Plant Cell Tissue an | HCAPLUS |

L41 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:181819 HCAPLUS

DN 137:362953

TI Thrombin peptide, TP508, stimulates angiogenic responses in animal models of dermal wound healing, in chick chorioallantoic membranes, and in cultured human aortic and microvascular endothelial cells

AU Norfleet, Andrea M.; Bergmann, John S.; Carney, Darrell H.

CS Chrysalis BioTechnology, Inc., Galveston, TX, USA

SO General Pharmacology (2000), 35(5), 249-254

CODEN: GEPHDP; ISSN: 0306-3623

PB Elsevier Science Inc.

DT Journal

LA English

AB The  $\alpha$ -thrombin peptide, TP 508, accelerates the healing of full-thickness wounds in both normal and ischemic skin. In wounds treated with TP 508, a pattern of increased vascularization is consistently observed both grossly and microscopically when compared to wounds treated with saline. One possible mechanism by which the peptide accelerates wound healing is by promoting revascularization of granulation tissue at the injured site. To evaluate the angiogenic potential of TP 508, the peptide was tested in the chick embryo chorioallantoic membrane (CAM), where it increased the d. and size of CAM blood vessels relative to controls. Addnl., TP 508 stimulated chemokinesis and chemotaxis in a dose-dependent fashion in cultured human aortic and human microvascular endothelial cells. Taken together, these in vivo and in vitro data support an angiogenic role for TP 508 in wound healing. A working model is presented to explain how this 23-amino-acid peptide, which lacks proteolytic activity, is generated during wound healing and contributes to the nonproteolytic functions associated with  $\alpha$ -thrombin during tissue repair.

IT 121341-81-9, TP 508

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(TP 508 stimulation of angiogenic responses in animal models of dermal wound healing in chick chorioallantoic membranes and in cultured human aortic and microvascular endothelial cells)

#### RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Altieri, D                 | 1995          | 58           | 120         | J Leukocyte Biol         | HCAPLUS            |
| Augustin, H                | 1998          | 19           | 216         | Trends Pharmacol Sci     | HCAPLUS            |
| Bar-Shavit, R              | 1986          | 29           | 213         | Int Rev Exp Pathol       | HCAPLUS            |
| Bar-Shavit, R              | 1986          | 32           | 261         | J Cell Biochem           | HCAPLUS            |
| Bar-Shavit, R              | 1983          | 49           | 702         | Lab Invest               | HCAPLUS            |
| Carney, D                  | 1984          | 26           | 181         | J Cell Biochem           | HCAPLUS            |
| Carney, D                  | 1992          | 89           | 1469        | J Clin Invest            | HCAPLUS            |

|               |      |     |      |                      |         |
|---------------|------|-----|------|----------------------|---------|
| Carney, D     | 1986 | 12  | 231  | Semin Thromb Haemost | HCAPLUS |
| Carney, D     | 1992 | 18  | 91   | Semin Thromb Haemost | MEDLINE |
| Cirino, G     | 2000 | 21  | 170  | Trends Pharmacol Sci | HCAPLUS |
| Fett, J       | 1987 | 146 | 1122 | Biochem Biophys Res  | HCAPLUS |
| Glenn, K      | 1988 | 1   | 65   | Pept Res             | HCAPLUS |
| Goldberger, A | 1998 | 428 | 1    | Becton Dickinson Tec |         |
| Grand, R      | 1996 | 313 | 353  | Biochem J            | HCAPLUS |
| Hoying, J     | 1996 | 3   | 167  | Microcirculation     | MEDLINE |
| Jenkins, A    | 1995 | 108 | 3059 | J Cell Sci           | HCAPLUS |
| Mann, K       | 1999 | 82  | 165  | Thromb Haemostasis   | HCAPLUS |
| Moller, M     | 2001 | 12  | 257a | Mol Biol Cell        |         |
| Norfleet, A   | 2000 | 8   | 517  | Wound Repair Regener | MEDLINE |
| Schwartz, S   | 1993 | 21  | S31  | J Cardiovasc Pharmac | HCAPLUS |
| Sower, L      | 1999 | 10  | 186a | Mol Biol Cell        |         |
| Stiernberg, J | 2000 | 8   | 204  | Wound Repair Regener | MEDLINE |
| Strukova, S   | 2001 | 66  | 8    | Biochemistry (Moscow | HCAPLUS |
| Vergnolle, N  | 2001 | 22  | 146  | Trends Pharmacol Sci | HCAPLUS |
| Wilner, G     | 1981 | 97  | 403  | J Lab Clin Med       | HCAPLUS |
| Yang, E       | 1990 | 111 | 731  | J Cell Biol          | HCAPLUS |

L41 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:71892 HCAPLUS

DN 136:129084

TI Stimulation of bone growth with thrombin peptide derivatives

IN Carney, Darrell H.; Crowther, Roger S.; Simmons, David  
J.; Yang, Jinping; Redin, William R.

PA Board of Regents, the University of Texas Systems, USA

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.      | KIND | DATE   | APPLICATION NO. | DATE         |
|------|-----------------|------|--|-----------------|--------------|
| PI   | WO 2002005836   | A2   | 20020124   | WO 2001-US22641 | 20010718 <-- |
|      | WO 2002005836   | A3   | 20021219   |                 |              |
|      | W:              |      | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |                 |              |
|      | RW:             |      | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |                 |              |
|      | EP 1301196      | A2   | 20030416   | EP 2001-954752  | 20010718 <-- |
|      | EP 1301196      | B1   | 20031126   |                 |              |
|      | R:              |      | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |                 |              |
|      | JP 2004503596   | T2   | 20040205   | JP 2002-511768  | 20010718 <-- |
|      | US 2002128202   | A1   | 20020912   | US 2001-909122  | 20010719 <-- |
|      | US 2002182205   | A1   | 20021205   | US 2002-50692   | 20020116 <-- |
| PRAI | US 2000-219300P | P    | 20000719   | <--             |              |
|      | WO 2001-US22641 | W    | 20010718   | <--             |              |
|      | US 2001-909122  | A1   | 20010719   | <--             |              |

OS MARPAT 136:129084

AB Disclosed is a method of stimulation bone growth at a site in a subject in need of osteoinduction. The method comprises the step of administering a therapeutically effective amount of an agonist of the non-proteolytically activated thrombin receptor to the site.

IT 93674-98-7 121341-81-9, TP508 390773-29-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(stimulation of bone growth with thrombin peptide derivs.)

IT 26100-51-6, Polylactic acid 26124-68-5,  
Polyglycolic acid 34346-01-5  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(stimulation of bone growth with thrombin peptide derivs.)

L41 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:51284 HCAPLUS  
DN 136:96054  
TI Methods of therapy with thrombin-derived peptides for promoting cardiac tissue repair  
IN Carney, Darrell H.  
PA The Board of Regents, the University of Texas System, USA  
SO PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.  | KIND   | DATE         | APPLICATION NO. | DATE         |
|------|---|--|--------------|-----------------|--------------|
| PI   | WO 2002004008   | A2   | 20020117     | WO 2001-US21944 | 20010712 <-- |
|      | WO 2002004008   | A3   | 20020822     |                 |              |
|      | W:  | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |              |                 |              |
|      | RW:   | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG   |              |                 |              |
|      | US 2002061852   | A1   | 20020523     | US 2001-904090  | 20010712 <-- |
|      | EP 1253937  | A2   | 20021106     | EP 2001-957136  | 20010712 <-- |
|      | EP 1253937  | B1   | 20030910     |                 |              |
|      | R:  | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |              |                 |              |
|      | AT 249238   | E  | 20030915     | AT 2001-1957136 | 20010712 <-- |
|      | JP 2004502739   | T2   | 20040129     | JP 2002-508462  | 20010712 <-- |
|      | US 2002187933   | A1   | 20021212     | US 2002-50611   | 20020116 <-- |
| PRAI | US 2000-217583P   | P  | 20000712 <-- |                 |              |
|      | US 2001-904090  | A1   | 20010712 <-- |                 |              |
|      | WO 2001-US21944   | W  | 20010712 <-- |                 |              |
| AB   | The present invention relates to a method for promoting cardiac tissue repair comprising administering to the cardiac tissue a therapeutically effective amount of an angiogenic thrombin-derived peptide and/or inhibiting or reducing vascular occlusion or restenosis. The invention also relates to methods of stimulating revascularization. In yet another embodiment, the invention relates to the use of thrombin-derived peptides in the manufacture of a medicament for the methods described herein. |  |              |                 |              |
| IT   | 93674-98-7 121341-81-9<br>RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)<br>(methods of therapy with thrombin-derived peptides for promoting cardiac tissue repair)  |  |              |                 |              |
| IT   | 34346-01-5, Poly(lactic acid-glycolic acid)<br>RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)<br>(microparticles; methods of therapy with thrombin-derived peptides for promoting cardiac tissue repair)   |  |              |                 |              |

peptide

AU Simmons, D. J.; Yang, J.; Yang, S.; Bi, L. X.; Buford, W. L.; Turner, R. T.; **Crowther, R.; Carney, D. H.**

CS Department of Orthopaedic Surgery and Rehabilitation, University of Texas Medical Branch, Galveston, TX, 77555-0892, USA

SO Calcium Metabolism: Comparative Endocrinology, [International Satellite Symposium], 2nd, San Francisco, CA, United States, Nov. 30, 1998 (1999), Meeting Date 1998, 145-151. Editor(s): Danks, Janine. Publisher: BioScientifica Ltd., Bristol, UK. CODEN: 69BVZS

DT Conference

LA English

AB The authors studied the effects of the 23-amino acid fragment of the human thrombin mol. TP508 and basic fibroblast growth factor (bFGF) on bone healing in immature and mature rats. TP508 enhanced mech. strength and accelerated progression of the healing process to a greater extent than bFGF. A single dose of 1 µg TP508 doubled the initial rate at which mech. strength was returned to the limb.

IT 121341-81-9

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (thrombin peptide TP508 acceleration of rat femoral fracture healing)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bak, B                     | 1992          | 13           | 289         | Bone                     | MEDLINE            |
| Bonnarens, F               | 1984          | 2            | 97          | Journal of Orthopaed     | MEDLINE            |
| Burny, F                   | 1987          |              | 123         | Fracture Healing         |                    |
| Carney, D                  | 1992          | 89           | 1469        | Journal of Clinical      | HCAPLUS            |
| Connolly, J                | 1979          |              | 547         | Electrical Propertie     |                    |
| Glenn, K                   | 1988          | 2            | 65          | Peptide Research         |                    |
| Grills, B                  | 1997          | 15           | 235         | Journal of Orthopaed     | HCAPLUS            |
| Hinsenkamp, M              | 1979          |              | 267         | Fracture Healing         |                    |
| Kawaguchi, H               | 1994          | 135          | 774         | Endocrinology            | HCAPLUS            |
| Kim, D                     | 1994          | 160          | 573         | Journal of Cell Phys     | HCAPLUS            |
| Kurdy, N                   | 1996          | 27           | 143         | Injury                   | MEDLINE            |
| Lind, M                    | 1993          | 64           | 553         | Acta Orthopeda Sca       | MEDLINE            |
| Odedra, R                  | 1991          | 49           | 111         | Pharmacological Ther     | HCAPLUS            |
| Simmons, D                 | 1980          |              | 283         | Fundamental and Clin     | HCAPLUS            |
| Trueta, J                  | 1974          | 105          | 11          | Clinical Orthopedics     | MEDLINE            |

L41 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:91527 HCAPLUS

DN 134:157557

TI Synthetic peptide neutrophil cell chemotactic agents

IN **Carney, Darrell H.**; Ramakrishnan, Shyam

PA Chrysalis Biotechnology, Inc., USA

SO U.S., 15 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE         |
|------|----------------|------|----------|-----------------|--------------|
| PI   | US 6184342     | B1   | 20010206 | US 1994-330594  | 19941028 <-- |
|      | US 6602978     | B1   | 20030805 | US 2000-644038  | 20000822 <-- |
|      | US 2002032314  | A1   | 20020314 | US 2001-777328  | 20010205 <-- |
| PRAI | US 1994-330594 | A2   | 19941028 | <--             |              |

AB These compns. are new synthetic peptides and antibodies which are potent chemotactic agents for human neutrophils, presented with methods for their use. The specificity of these peptides is amino acid sequence specific for binding to a heretofore unidentified receptor on the surface of



neutrophils. Neutrophil response to this peptide is specific, since monocytes and fibroblasts do not show any expression of this receptor. Antibodies against these peptides block the chemotactic response. Such antibodies are useful to modulate neutrophil recruitment to a wound site for enhancing or inhibiting inflammation and early effects of wound healing.

IT 121341-81-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(synthetic peptide neutrophil cell chemotactic agents)

# RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| Bar-Shavit, R              | 1986          | 83           | 976         | Proc Natl Acad Sci U     | HCAPLUS            |
| Belloni, P                 | 1992          | 43           | 20          | Microvas Res             | HCAPLUS            |
| Brass                      | 1998          |              |             | US 5840499               | HCAPLUS            |
| Carney, D                  | 1978          | 95           | 13          | J Cell, Physiol          | HCAPLUS            |
| Carney, D                  | 1992          | 89           | 1469        | J Clin Invest            | HCAPLUS            |
| Carney, D                  | 1992          | 18           | 91          | Semin Thromb Hemost      | MEDLINE            |
| Carney, D                  | 1992          |              | 351         | Thrombin Structure a     | HCAPLUS            |
| Cooper                     | 1986          |              | 93          | The Biochemical Basi     | HCAPLUS            |
| Fraker, P                  | 1978          | 80           | 849         | Biochem Biophys Res      | HCAPLUS            |
| Gurwitz, D                 | 1988          | 85           | 3440        | Proc Natl Acad Sci U     | HCAPLUS            |
| Harlow, E                  | 1988          |              | 726         | Antibodies:a laborat     |                    |
| He, C                      | 1991          | 146          | 131         | J Cell Physiol           | HCAPLUS            |
| Kalmer, J                  | 1988          | 110          | 275         | J Immunol Meth           |                    |
| Mansfield, P               | 1990          | 111          | 3077        | J Cell Biol              | HCAPLUS            |
| Naldini, A                 | 1993          | 147          | 367         | Cell Immunol             | HCAPLUS            |
| Perez-Rodriguez, R         | 1981          | 5            | 347         | Cell Biol Int Rep        | HCAPLUS            |
| Rasmussen, U               | 1991          | 288          | 123         | FEBS Letters             | HCAPLUS            |
| Stiernberg, J              | 1993          | 70           | 158         | Thrombosis and Haemo     | HCAPLUS            |
| van Obberghen-Schilling    | 1993          | 19           | 378         | Semin Thromb Hemos       | MEDLINE            |
| Vu, T                      | 1991          | 64           | 1057        | Cell                     | HCAPLUS            |
| Zhong, C                   | 1992          | 267          | 16975       | J Biol Chem              | HCAPLUS            |

L41 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:344454 HCAPLUS

DN 132:334800

TI Preparation of peptides for regeneration of nerve cell

IN Nishimura, Yoshihiko; Suzuki, Yoshihisa; Tanihara, Masao; Hashimoto, Tadashi

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.        | KIND | DATE     | APPLICATION NO. | DATE         |
|------|-------------------|------|----------|-----------------|--------------|
| PI   | JP 2000143531     | A2   | 20000523 | JP 1999-227108  | 19990811 <-- |
| PRAI | JP 1998-270498    | A    | 19980909 | <--             |              |
| OS   | MARPAT 132:334800 |      |          |                 |              |

AB A nerve regenerating material immobilized on a support (in particular polysaccharide gel, more specifically alginic acid gel or crosslinked alginic acid gel), at least one peptide selected from a peptide of formula X-A-D-E-G-J-L-M-Pro-Q-Y (X = H, MeCO, MeCO-Lys; A = Ser, Thr; D = Ile, Val, Leu; E = Lys, Arg; G = Ile, Val, Leu; J = Gly, Ala; L = Ile, Val, Leu; M = Gly, Ala; Q = Gly, Ala, Gly-Lys-Lys-Gly; Y = OH, or NH<sub>2</sub>), H-Ala-Gly-Tyr-Lys-Pro-Asp-Glu-Gly-Lys-Arg-Gly-Asp-Ala-Cys-Glu-Gly-Asp-Ser-Gly-Gly-Pro-Phe-Val-OH, H-Cys-Leu-Asn-Gly-Gly-Val-Ala-Met-His-Ile-Glu-Ser-Leu-Asp-Ser-Tyr-Thr-Cys-OH, H-Ser-Ile-Lys-Val-Ala-Val-OH,

Ac-Lys-Ser-Ile-Lys-Val-Ala-Val-OH, H-Asn-Pro-Gly-Ala-Ser-Ala-Ala-Pro-Cys-Cys-Val-Pro-Gln-Ala-Leu-Glu-OH, H-Val-Gly-Val-Ala-Pro-Gly-OH, Ac-Lys-Val-Gly-Val-Ala-Pro-Gly-OH and/or its salt or a bioabsorbable tube packed with above nerve regenerating material is prepared. This material is useful for proliferation of nerve cell or regeneration of nerve tissues. Fourteen peptides were prepared by the solid phase method and immobilized on a crosslinked alginic acid gel, and each immobilized peptide was packed in a poly(glycolic acid) tube. The latter tube-packed material exhibited good regeneration of peripheral nerve (sciatic nerve) in cat.

IT 121341-81-9DP, immobilized on crosslinked alginic acid gel and packed in poly(glycolic acid) tube 121341-81-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of immobilized peptides for regeneration of nerve cell)

L41 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:254039 HCAPLUS

DN 132:289590

TI Peptide-enhanced cationic lipid transfections

IN Hawley-Nelson, Pamela; Lan, Jianqing; Shih, Pojen; Jessee, Joel A.; Schifferli, Kevin P.; Gebeyehu, Gulilat

PA Life Technologies, Inc., USA

SO U.S., 103 pp., Cont.-in-part of U.S. 5,736,392.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 5

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE         |
|------|--|------|----------|-----------------|--------------|
| PI   | US 6051429   | A    | 20000418 | US 1997-818200  | 19970314 <-- |
|      | US 5736392   | A    | 19980407 | US 1996-658130  | 19960604 <-- |
|      | WO 9840502   | A1   | 19980917 | WO 1998-US5232  | 19980316 <-- |
|      | W:   |      |          |                 |              |
|      | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |              |
|      | RW:  |      |          |                 |              |
|      | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG   |      |          |                 |              |
|      | AU 9865622   | A1   | 19980929 | AU 1998-65622   | 19980316 <-- |
|      | EP 1007699   | A1   | 20000614 | EP 1998-911737  | 19980316 <-- |
|      | R:   |      |          |                 |              |
|      | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI   |      |          |                 |              |
|      | JP 2001517939  | T2   | 20011009 | JP 1998-539899  | 19980316 <-- |
|      | US 6376248   | B1   | 20020423 | US 1998-39780   | 19980316 <-- |
|      | US 2003144230  | A1   | 20030731 | US 2002-200879  | 20020723 <-- |
| PRAI | US 1995-477354   | B2   | 19950607 | <--             |              |
|      | US 1996-658130   | A2   | 19960604 | <--             |              |
|      | US 1997-818200   | A    | 19970314 | <--             |              |
|      | US 1998-39780  | A1   | 19980316 | <--             |              |
|      | WO 1998-US5232   | W    | 19980316 | <--             |              |
|      | US 2001-911569   | A1   | 20010723 |                 |              |

AB The present invention provides compns. useful for transfecting eukaryotic cells comprising nucleic acid complexes with peptides, wherein the peptide is optionally covalently coupled to a nucleic acid-binding group, and cationic lipids or dendrimers as transfection agents. The invention also provides transfection compns. in which a peptide is covalently linked to the transfection agent (lipid, cationic lipid or dendrimer). Inclusion of peptides or modified-peptides in transfection compns. or covalent attachment of peptides to transfection agents results in enhanced transfection efficiency. Methods for the preparation of transfection compns.

and methods of using these transfection compns. as intracellular delivery agents and extracellular targeting agents are also disclosed.

IT 93674-98-7

RL: PRP (Properties)

(unclaimed sequence; peptide-enhanced cationic lipid transfections)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
| =====                      | =====         | =====        | =====       | =====                    | =====              |
| Anon                       |               |              |             | WO A91                   |                    |
| Anon                       | 1990          |              |             | EP 0359347               | HCAPLUS            |
| Anon                       | 1991          |              |             | WO 16024                 |                    |
| Anon                       | 1992          |              |             | EP 0544292               | HCAPLUS            |
| Anon                       | 1992          |              |             | WO 9213570               | HCAPLUS            |
| Anon                       | 1992          |              |             | AU B-2652692             |                    |
| Anon                       | 1993          |              |             | WO 9307282               | HCAPLUS            |
| Anon                       | 1993          |              |             | WO 9307283               | HCAPLUS            |
| Anon                       | 1993          |              |             | WO 9319768               | HCAPLUS            |
| Anon                       | 1994          |              |             | WO 9404696               | HCAPLUS            |
| Anon                       | 1994          |              |             | WO 9423751               | HCAPLUS            |
| Anon                       | 1994          |              |             | WO 9423751               | HCAPLUS            |
| Anon                       | 1995          |              |             | WO 9502397               | HCAPLUS            |
| Anon                       | 1995          |              |             | WO 9524221               | HCAPLUS            |
| Anon                       | 1995          |              |             | WO 9531557               | HCAPLUS            |
| Anon                       | 1996          |              |             | WO 9601841               | HCAPLUS            |
| Anon                       | 1996          |              |             | WO 9605218               | HCAPLUS            |
| Anon                       | 1996          |              |             | WO 9605218               | HCAPLUS            |
| Anon                       | 1996          |              |             | WO 9610038               | HCAPLUS            |
| Anon                       | 1996          |              |             | WO 9622765               | HCAPLUS            |
| Beug                       | 1994          |              |             | US 5354844               | HCAPLUS            |
| Cotten                     | 1992          | 89           | 6094        | Proc Natl Acad Sci U     | HCAPLUS            |
| Curiel, D                  | 1992          | 3            | 147         | Hum Gene Therapy         | MEDLINE            |
| Curiel, D                  | 1991          | 88           | 8850        | Proc Natl Acad Sci U     | HCAPLUS            |
| Epand                      | 1992          | 32           | 309         | Biopolymers              | HCAPLUS            |
| Eppstein                   | 1990          |              |             | US 4946787               | HCAPLUS            |
| Feldhaus                   | 1998          |              |             | US 5759805               | HCAPLUS            |
| Flotte                     | 1997          |              |             | US 5658776               | HCAPLUS            |
| Frechet                    | 1996          |              |             | US 5587441               | HCAPLUS            |
| Fretchet                   | 1996          |              |             | US 5587446               | HCAPLUS            |
| Gao                        | 1998          |              |             | US 5795587               | HCAPLUS            |
| Hedstrand                  | 1996          |              |             | US 5560929               | HCAPLUS            |
| Jessee                     | 1996          |              |             | US 5578475               | HCAPLUS            |
| Liljstrom, P               | 1991          | 9            | 1356        | Biotech                  |                    |
| Meyer                      | 1996          |              |             | US 5574142               | HCAPLUS            |
| Murata                     | 1991          | 179          | 1050        | Biochem Biophys Res      | HCAPLUS            |
| Paul                       | 1998          |              |             | US 5736387               | HCAPLUS            |
| Phalen                     | 1991          | 112          | 615         | J Cell Biol              | HCAPLUS            |
| Short                      | 1996          |              |             | US 5589392               | HCAPLUS            |
| Szoka                      | 1997          |              |             | US 5661025               | HCAPLUS            |
| Tomalia                    | 1994          |              |             | US 5338532               | HCAPLUS            |
| Tomalia                    | 1996          |              |             | US 5527524               | HCAPLUS            |
| Wagner, E                  | 1992          | 89           | 6099        | Proc Natl Acad Sci U     | HCAPLUS            |
| Watner, E                  | 1992          | 89           | 7934        | Proc Natl Acad Sci U     |                    |
| Winnik                     | 1993          |              |             | US 5266106               | HCAPLUS            |
| Wu                         | 1992          |              |             | US 5166320               | HCAPLUS            |

L41 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:771184 HCAPLUS

DN 130:57167

TI Peptides for the promotion of wound healing

IN Kakimaru, Yoshimi; Tanihara, Masao

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.       | KIND | DATE         | APPLICATION NO. | DATE         |
|------|------------------|------|--------------|-----------------|--------------|
| PI   | JP 10316581      | A2   | 19981202     | JP 1997-140885  | 19970515 <-- |
| PRAI | JP 1997-140885   |      | 19970515 <-- |                 |              |
| OS   | MARPAT 130:57167 |      |              |                 |              |

AB Disclosed are peptides which are effective for the promotion of cell growth and cell adhesion. The peptides are immobilized on a substrate to use as an agent for wound healing and tissue regeneration. A peptide, Lys-Ser0Ile-Arg-Val-Ala-Ala-Pro-Gly, was immobilized on a crosslinked alginic acid gel to use as a wound dressing.

IT 121341-81-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptides for promotion of tissue healing)

L41 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:93940 HCAPLUS

DN 128:226614

TI Enhancement of corneal epithelial wound healing by thrombin receptor activating peptide in the rat

AU Hallberg, Csilla K.; Gill, Kuljit S.; Redin, William R.; Yannariello-Brown, Judith; Brysk, Miriam M.; Carney, Darrell H.; Trocme, Stefan D.

CS Department of Ophthalmology and Visual Sciences, School of Medicine, Cornea Service and Eye Research Laboratory, The University of Texas Medical Branch, Galveston, TX, 77555-0787, USA

SO Research Communications in Pharmacology and Toxicology (1997), 2(3), 129-136

CODEN: RCPTFY; ISSN: 1087-1101

PB PJD Publications Ltd.

DT Journal

LA English

AB The effect of thrombin receptor-activating peptide (TRAP-508) on corneal epithelial cell migration and proliferation was studied in an established organ culture model of rat corneal epithelial wound healing. Epithelial migration was measured by photo image anal. at different TRAP-508 peptide concns. (0, 1.0, 10, and 100 µg/mL). Proliferative activity of corneal epithelial cells was assessed by 3H-thymidine uptake and autoradiog. at the wound site, at an area adjacent to the wound site, and at the periphery. A significant increase in the area of epithelial migration was demonstrated in 10, and 100 µg/mL TRAP-508 test groups, compared to a control group with no peptide. Autoradiog. revealed a significant increase in 3H-thymidine uptake in the area adjacent to the wound site in the TRAP-508 test groups, compared to both the control group with no peptide and the TRAP-G-517 (control peptide) test group. TRAP-508 accelerated closure of epithelial defects in a dose-dependent fashion and appeared to enhance proliferation of epithelial cells in migrating rat corneal epithelium. The authors' findings suggest that TRAP-508 may hold potential as a treatment for conditions with poor epithelial healing.

IT 121341-81-9, TRAP 508

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(corneal epithelial wound healing enhancement by thrombin receptor activating peptide)

RETABLE

| Referenced Author<br>(RAU) | Year<br>(RPY) | VOL<br>(RVL) | PG<br>(RPG) | Referenced Work<br>(RWK) | Referenced<br>File |
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|
|----------------------------|---------------|--------------|-------------|--------------------------|--------------------|

|              |      |     |      |                      |         |
|--------------|------|-----|------|----------------------|---------|
| Belloni, P   | 1992 | 43  | 20   | Microvas Res         | HCAPLUS |
| Carney, D    | 1978 | 15  | 1341 | Cell                 | HCAPLUS |
| Carney, D    | 1978 | 95  | 13   | J Cell Physiol       | HCAPLUS |
| Carney, D    | 1992 | 89  | 1469 | J Clin Invest        | HCAPLUS |
| Chen, L      | 1975 | 72  | 1311 | Proc Natl Acad Sci U |         |
| Cromack, D   | 1992 | 53  | 117  | J Surgical Research  | MEDLINE |
| Gipson, I    | 1980 | 19  | 341  | Invest Ophthalmol Vi | HCAPLUS |
| Glenn, K     | 1988 | 1   | 65   | Peptide Res          | HCAPLUS |
| Hallberg, C  | 1993 | 34  | 1011 | Invest Ophthalmol Vi |         |
| Mustoe, T    | 1987 | 237 | 1333 | Science              | HCAPLUS |
| Pierce, G    | 1988 | 167 | 974  | J Exp Med            | HCAPLUS |
| Stienberg, J | 1993 | 70  | 158  | Thrombosis and Hemos |         |
| Trocme, S    | 1994 | 35  | 3051 | Invest Ophthalmol Vi | MEDLINE |

L41 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:119161 HCAPLUS

DN 126:135681

TI Non-biological patch for hemostasis

IN Pruss, Thaddeus P.; Will, James A.

PA Clarion Pharmaceuticals Inc., USA

SO PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.   | KIND | DATE         | APPLICATION NO. | DATE         |
|------|--|------|--------------|-----------------|--------------|
| PI   | WO 9640033   | A1   | 19961219     | WO 1996-US6334  | 19960506 <-- |
|      | W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI  |      |              |                 |              |
|      | RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML   |      |              |                 |              |
|      | AU 9656380   | A1   | 19961230     | AU 1996-56380   | 19960506 <-- |
| PRAI | US 1995-486979   | A    | 19950607 <-- |                 |              |
|      | WO 1996-US6334   | W    | 19960506 <-- |                 |              |
| AB   | A hemostatic patch that is advantageously safe and inexpensive, comprises a sponge, and an effective amount of $\epsilon$ -aminocaproic acid and a thrombin receptor-activating peptide for promoting hemostasis. $\epsilon$ -Aminocaproic acid is a hemostatic agent that inhibits fibrinolysis, accelerates the activity of thrombin and possesses antibacterial properties. Thrombin receptor-activating peptide activates platelets and promotes platelet aggregation. The patch is particularly effective for decreasing bleeding of parenchymal organs, as well as for topical use particularly in a bandage form. The bandage form comprises a backing member located contiguous with an exterior surface of the patch and opposite the wound contacting surface of the patch. A flap extends from the backing member and a medically acceptable adhesive can be applied onto the flap. |      |              |                 |              |
| IT   | 146367-84-2  |      |              |                 |              |
|      | RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (hemostatic patch comprising $\epsilon$ -aminocaproic acid and thrombin receptor-activating peptides in biodegradable matrix)  |      |              |                 |              |

L41 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:741563 HCAPLUS

DN 126:17181

TI Synergistic actions of a thrombin-derived synthetic peptide and a thrombin receptor-activating peptide in stimulating fibroblast mitogenesis

AU Hollenberg, Morley D.; Mokashi, Shalini; Leblond, Lorraine; DiMaio, John

CS Dep. Pharmacol. Therapeutics Med., Univ. Calgary, Calgary, AB, T2N 4N1,

Can.

SO Journal of Cellular Physiology (1996), 169(3), 491-496  
CODEN: JCLLAX; ISSN: 0021-9541

PB Wiley-Liss

DT Journal

LA English

AB We measured the ability of the thrombin receptor activating peptide, SFLLR-NH2 (P5A) to stimulate 3H-thymidine incorporation in hamster CCL-39 fibroblasts either alone or in combination with the thrombin-derived polypeptides, YPPWNKNFTENDLL (TDP-1) and AGYKPDEGKRGDACEGDSGGPFV (TDP-2). In the presence (but not absence) of the amino peptidase inhibitor amastatin (10  $\mu$ M), P5A alone (7.5 to 100  $\mu$ M) caused a 1.5-2-fold stimulation of thymidine incorporation above basal, even though this inhibitor did not abrogate the degradation of P5A by other peptidases present in the assay medium. Neither TDP-1 nor TDP-2 alone had any effect on thymidine incorporation. However, TDP-1 (30 to 90  $\mu$ M) considerably augmented P5A-mediated thymidine incorporation at low P5A concns. (7.5 to 30  $\mu$ M), shifting the P5A concentration-effect curve to the left. TDP-2 was inactive in this regard. The EC50 for this potentiating action of TDP-1 was approx. 40  $\mu$ M. Further, thrombin, rendered proteolytically inactive by a low-mol.-weight bifunctional inhibitor, hirutonin-6, also acted synergistically with P5A to stimulate CCL-39 cell thymidine incorporation. We hypothesize that thrombin can cause its activation of its G-protein-coupled receptor, but also via the concurrent and synergistic interaction of its TDP-1 peptide domain with a sep. cell surface docking site.

IT 121341-81-9, AGYKPDEGKRGDACEGDSGGPFV

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(thrombin-derived synthetic peptide and thrombin receptor-activating peptide synergistic action in stimulating fibroblast mitogenesis)

L41 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:349670 HCAPLUS

DN 125:34044

TI Preparation of tetrasaccharide conjugates as inhibitors of cell adhesion.

IN Kretzschmar, Gerhard; Schmidt, Wolfgang; Sprengard, Ulrich; Bartnick, Eckart; Seiffge, Dirk; Kunz, Horst

PA Hoechst A.-G., Germany

SO Ger. Offen., 31 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | DE 4436164  | A1   | 19960411 | DE 1994-4436164 | 19941010 <-- |
|      | US 5858994  | A    | 19990112 | US 1995-509079  | 19950731 <-- |
|      | EP 714903   | A1   | 19960605 | EP 1995-115588  | 19951004 <-- |
|      | EP 714903   | B1   | 20020515 |                 |              |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE |      |          |                 |              |
|      | AT 217630   | E    | 20020615 | AT 1995-115588  | 19951004 <-- |
|      | CA 2160100  | AA   | 19960411 | CA 1995-2160100 | 19951006 <-- |
|      | JP 08325286   | A2   | 19961210 | JP 1995-261763  | 19951009 <-- |
| PRAI | DE 1994-4436164   | A    | 19941010 | <--             |              |
| OS   | MARPAT 125:34044  |      |          |                 |              |
| GI   |   |      |          |                 |              |

AB ZY(CH<sub>2</sub>)<sub>n</sub>(NHCO)pR<sub>2</sub> [Z = branched tetrasaccharide residue; Y = O, NHCO; R<sub>2</sub> = amino acid or oligopeptide residue, (cyclo)aliphatic residue, combination of aliphatic and heterocyclic residues, triphenylmethane dye; when Y = O and p = 1, then n = 2-10; when Y = NHCO and p = 0, n = 0-10; when Y = NHCO and p = 1, then n = 1-10], were prepared for treatment and diagnosis of diseases dependent on cell-cell adhesion, and as synthetic vaccines. Thus, title compound (I; R<sub>1</sub> = H-Arg-Gly-Asp-Ala-), prepared via lactone (II), inhibited HL60 cell adhesion to recombinant P-selectin with IC<sub>50</sub> = 0.01 mM.

IT **176244-98-7P**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

IT **177485-29-9**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

IT **177485-26-6P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of tetrasaccharide conjugates as inhibitors of cell adhesion)

L41 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1996:158245 HCAPLUS  
DN 124:343845  
TI Synthesis and biological activity of novel sialyl-LewisX conjugates  
AU Sprengard, Ulrich; Kunz, Horst; Huels, Christoph; Schmidt, Wolfgang; Seiffge, Dirk; Kretzschmar, Gerhard  
CS Hoechst AG, Frankfurt/Main, D-65926, Germany  
SO Bioorganic & Medicinal Chemistry Letters (1996), 6(5), 509-14  
CODEN: BMCLE8; ISSN: 0960-894X  
PB Elsevier  
DT Journal  
LA English  
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Novel sialyl LewisX conjugates I [R = O(CH<sub>2</sub>)<sub>6</sub>NH<sub>2</sub>, O(CH<sub>2</sub>)<sub>6</sub>NHCOCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>H, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, etc.] have been synthesized and evaluated as inhibitors of E- and P-selectin mediated cell adhesion in cell culture assays. The most potent conjugate in the static inhibition assays exhibited a significant and dose-dependent pharmacol. potency as inhibitor of the endotoxin-induced leukocyte adhesion to the endothelium of postcapillary venules in rats.

IT **176244-98-7P**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(synthesis and biol. activity of novel sialyl-LewisX conjugates)

L41 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1995:963243 HCAPLUS  
DN 124:24242  
TI Applications of a new hydrophobicity parameter of amino acid side chains to quantitative structure-activity analyses of oligopeptides  
AU Akamatsu, Miki; Ueno, Tamio; Fujita, Toshio  
CS Dep. of Agricultural Chemistry, Kyoto Univ., Kyoto, 606-01, Japan  
SO ACS Symposium Series (1995), 606(Classical and Three-Dimensional QSAR in Agrochemistry), 229-39  
CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

LA English

AB A new hydrophobicity parameter,  $\pi\alpha$  for the side chain of amino acid residues was defined by quant. analyzing the composition of exptl. measured log P value of oligopeptides and N-acetyl oligopeptide amides. It is comprised not only of the intrinsic  $\pi$  value of side chain substituents but also of other substituent factors to promote the aqueous/hydrophobic phase transfer of peptides. However, factors attributable to the conformational effects induced by intramol. hydrogen-bonding such as  $\beta$ -turn and  $\alpha$ -helix are not included in  $\pi\alpha$ . Structure-activity relationships for the platelet aggregation inhibition of the Arg-Gly-Asp-X (X: hydrophobic amino acid residue) series and for the opioid effects of two series of the gluten exorphin analogs, Tyr-Pro-X-Ser-Leu and Tyr-Pro-Ile-Gly-X (X: amino acid residue), were analyzed quant. using the  $\pi\alpha$  parameter and with others when necessary. The  $\pi\alpha$  parameter as the effective hydrophobicity index was shown to work nicely. The behaviors of outliers were reasonably explained by considering variations in the conformational equilibrium between extended and  $\beta$ -turned forms in the hydrophobic environment.

IT 154331-63-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study) (platelet aggregation inhibitor; applications of a new hydrophobicity parameter of amino acid side chains to quant. structure-activity analyses of oligopeptides)

L41 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:826253 HCAPLUS

DN 123:237743

TI Bioreactivity of titanium implant alloys

AU Kerber, Susan J.

CS Mat. Interface, Inc., Sussex, WI, 53089-2244, USA

SO Journal of Vacuum Science & Technology, A: Vacuum, Surfaces, and Films (1995), 13(5), 2619-23

CODEN: JVTAD6; ISSN: 0734-2101

PB American Institute of Physics

DT Journal

LA English

AB A study was conducted regarding the adsorption of peptides on com. pure Ti and Ti-6Al-4V. The peptides used were arginine-glycine-aspartic acid-alanine (RGDA), arginine-glycine-aspartic acid-serine (RGDS), and arginine-phenylalanine-aspartic acid-serine (RFDS). The tripeptide RGD is known to be important for biol. specific adhesion reactions. This research was conducted to investigate the reason for a tendency toward thrombus formation with Ti-6Al-4V that is not observed with cp Ti. After argon plasma cleaning, coupons of the titanium alloys were inserted into solns. with variable concns. (0.0625-2 mg/mL) of an individual peptide group under constant temperature and time conditions. The samples were rinsed, dried, and analyzed with XPS. Adsorption isotherms were obtained by plotting the relative amount of peptide adhesion as a function of solution concentration. It was postulated through the XPS and adsorption isotherm data that the major adhesion mechanism for the peptides to the titanium alloys was hydrogen bonding. Titanium and Ti-6Al-4V are hypothesized to react differently as implants because Ti-6Al-4V has a more electropos. surface, which allows fewer hydrogen bonds to form. Hydrophilic reactions were proposed to be of secondary importance during bioadhesion, influencing the structure of the second layer adsorbed. There was no correlation found between the net charge of the peptide groups and their adhesion to the alloys.

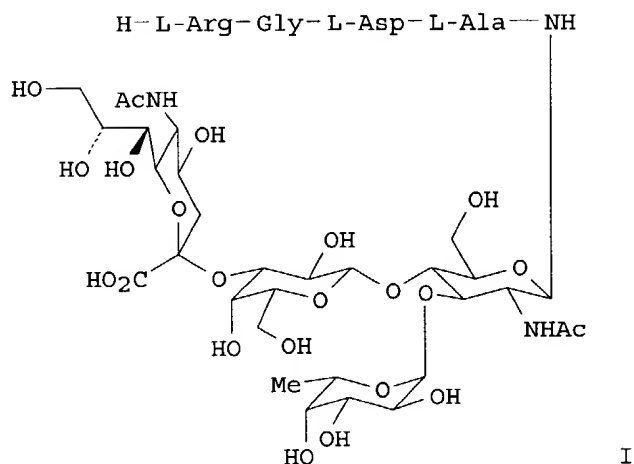
IT 93674-98-7

RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)



(bioreactivity of titanium implant alloys)

L41 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1995:580006 HCAPLUS  
 DN 123:286699  
 TI Synthesis of an RGD-sialyl-Lewis glycoconjugate: a new highly active  
 ligand for P-selectin  
 AU Sprengard, Ulrich; Kretzschmar, Gerhard; Bartnik, Eckart; Huels,  
 Christoph; Kunz, Horst  
 CS Hoechst AG, Frankfurt, D-65926, Germany  
 SO Angewandte Chemie, International Edition in English (1995),  
 34(9), 990-3  
 CODEN: ACIEAY; ISSN: 0570-0833  
 PB VCH  
 DT Journal  
 LA English  
 GI



AB Adhesion hybrid I combines the structural elements of the RGD  
 (Arg-Gly-Asp) motif with those of the sialyl LewisX ligand and is a highly  
 active ligand for P-selectin in cell assays. The synthesis of I is  
 described.  
 IT **169393-79-7P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological  
 study); PREP (Preparation)  
 (synthesis of RGD-sialyl-Lewis glycoconjugate as ligand for P-selectin)  
 IT **169393-76-4DP, resin-bound 169393-76-4P**  
**169393-77-5P 169393-78-6P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (synthesis of RGD-sialyl-Lewis glycoconjugate as ligand for P-selectin)

L41 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1994:260551 HCAPLUS  
 DN 120:260551  
 TI Determination of peptide hydrophobicity parameters by reversed-phase  
 high-performance liquid chromatography  
 AU Rothmund, S.; Krause, E.; Ehrlich, A.; Bienert, M.; Glusa, E.; Verhallen,  
 P.

- CS Institute of Molecular Pharmacology, Alfred-Kowalke-Strasse 4, Berlin, 10315, Germany
- SO Journal of Chromatography, A (1994), 661(1-2), 77-82  
CODEN: JCRAEY; ISSN: 0021-9673
- DT Journal
- LA English
- AB The log  $k_W$  values of fourteen potential fibrinogen receptor antagonist peptides (RGDX) determined by reversed-phase HPLC were correlated to hydrophobic parameters of the amino acid side-chain log P in position X of the tetrapeptides. Comparing the polymer columns with LiChrosorb RP-8, the correlation coefficient using a polyethylene column is higher (0.94) than that for RP-8 (0.88), which demonstrates the importance of a homogeneous hydrophobic surface and makes this method very suitable for the determination of the overall hydrophobicity of shorter peptides. The hydrophobicity parameters log  $k_W$  of the RGDX peptides (-1.15 to 2.19) were used to investigate the influence of mol. parameters of X on the potency of RGDX in inhibiting platelet aggregation. The results confirm the importance of hydrophobicity for the contribution of X to the biol. activity of RGDX.
- IT 154331-49-4 154331-63-2  
RL: BIOL (Biological study)  
(hydrophobicity and QSAR of, platelet aggregation inhibition in relation to)
- L41 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1993:536766 HCAPLUS
- DN 119:136766
- TI The role of thrombin and thrombin receptor activating peptide (TRAP-508) in initiation of tissue repair
- AU **Stiernberg, Janet**; Redin, William R.; Warner, W. Scott; Carney, Darrell H.
- CS Dep. Hum. Biol. Chem. Genet., Univ. Texas, Galveston, TX, 77555-0645, USA
- SO Thrombosis and Haemostasis (1993), 70(1), 158-62  
CODEN: THHADQ; ISSN: 0340-6245
- DT Journal
- LA English
- AB To determine if thrombin or thrombin receptors are involved in wound healing, thrombin receptor-activating peptide (TRAP-508) or thrombin was applied to newly created wounds in rats. Treatment of full dermal dorsal incisions in rats with a single topical application of TRAP-508 (500 pmoles or .apprx.1  $\mu\text{g}/\text{cm}$ ) in saline enhanced seven-day breaking strength 30 to 82% over saline-treated controls. Control wounds require .apprx.11.5 days to achieve breaking strength equivalent to TRAP-treated wounds at day seven. Thus, a single application of TRAP accelerated healing, shifting the time course forward by up to 4.5 days. Thrombin (109 pmoles or .apprx.0.3  $\mu\text{g}/\text{cm}$ ) also increased breaking strength, but only about 60% as well as TRAP-508. That TRAP works better than thrombin may reflect the ability of the peptide to elude natural thrombin inhibitors or may indicate that induction of excessive fibrin clot formation prevents thrombin from being fully effective. Histol. studies and angiog. showed that at day seven there was more type I collagen, less evidence of prolonged inflammation, and an increased number and maturity of capillaries in TRAP- and thrombin-treated incisions than in controls. These results suggest that TRAP enhancement of healing may relate to an early onset and completion of the inflammatory phase and an earlier stimulation of revascularization and fibroblastic collagen deposition.
- IT 121341-81-9  
RL: BIOL (Biological study)  
(tissue repair mediation by)
- L41 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN
- AN 1993:116686 HCAPLUS
- DN 118:116686

- TI Tissue repair by thrombin-derived peptides in the rat  
AU Warren, Wesley C.; Mustoe, Thomas A.; Glenn, Kevin C.  
CS Monsanto Co., St. Louis, MO, 63167, USA  
SO Peptide Research (1992), 5(6), 331-5  
CODEN: PEREEO; ISSN: 1040-5704  
DT Journal  
LA English  
AB Utilizing rat linear incision and full dermal excision models, the ability of 2 thrombin-derived peptides, p517 and p508 (corresponding to amino acids 517-530 and 508-530, resp., of human  $\alpha$ -prothrombin and both containing the sequence Arg-Gly-Asp), to enhance tissue repair was investigated under normal and healing-impaired conditions. P508, at 0.5  $\mu$ g peptide/wound, produced a 23% improvement in wound strength in a dose-dependent manner. Similarly, a single application of 0.5  $\mu$ g p517 per 6-cm linear incision wound increased wound-breaking strength approx. 18% at nine days postsurgery. However, in glucocorticoid-stressed rats, the application of 0.5  $\mu$ g p508 or 517 per wound did not influence steroid-impaired healing. In the full dermal skin excision wound model a single application of 0.5  $\mu$ g p508 per wound at the time of surgery reduced average wound area at days 3 and 5, when healing was impaired by glucocorticoid administration. Wound area was also reduced by p508 treatment at day 3 in the normal animal, but this effect was not significant. P508 and p517 may activate sound fibroblast proliferation or stimulate other cell types of the wound site through an Arg-Gly-Asp-mediated interaction.
- IT 121341-81-9 146367-84-2  
RL: BIOL (Biological study)  
(wound healing promotion by)
- L41 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1992:420457 HCAPLUS  
DN 117:20457  
TI Enhancement of incisional wound healing and neovascularization in normal rats by thrombin and synthetic thrombin receptor-activating peptides  
AU Carney, D. H.; Mann, R.; Redin, W. R.; Pernia, S. D.; Berry, D.; Heggors, J. P.; Hayward, P. G.; Robson, M. C.; Christie, J.; et al.  
CS Med. Branch, Univ. Texas, Galveston, TX, 77550, USA  
SO Journal of Clinical Investigation (1992), 89(5), 1469-77  
CODEN: JCINAO; ISSN: 0021-9738  
DT Journal  
LA English  
AB To better define thrombin-receptor interactions, the authors synthesized human thrombin peptides and identified binding domain peptides that bind thrombin receptors and activate mitogenic signals. Treatment of full dermal dorsal incisions with a single topical application of thrombin receptor-activating peptide (TRAP-508) or human  $\alpha$ -thrombin in saline enhanced the 7-day incisional breaking strength in normal rats up to 82% or 55% over saline-treated controls, resp. Control wounds required .apprx.11.5 days to achieve breaking strength equivalent to TRAP-treated wounds at day 7. Thus, a single application of TRAP accelerated healing, shifting the time course forward by up to 4.5 days. Histol. comparisons at day 7 showed more type 1 collagen, less evidence of prolonged inflammation, and an increase in the number and maturity of capillaries in TRAP- and thrombin-treated incisions. Angiograms also showed 50-65% more functional vascularization going across thrombin- and TRAP-treated surgical incisions. Thus,  $\alpha$ -thrombin and thrombin peptides, such as those released following injury, initiate or enhance signals required for neovascularization and wound healing. The ability to accelerate normal wound healing events with synthetic peptides representing receptor binding domains of human thrombin may offer new options for the management of wound healing in man.
- IT 121341-81-9, TRAP 508  
RL: BIOL (Biological study)

(skin wound healing enhancement by)

L41 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1991:583848 HCAPLUS  
DN 115:183848  
TI Development of a small RGD peptide fibrinogen receptor antagonist with  
potent antiaggregatory activity in vitro  
AU Samanen, J.; Ali, F.; Romoff, T.; Calvo, R.; Sorenson, E.; Vasko, J.;  
Storer, B.; Berry, D.; Bennett, D.; et al.  
CS Dep. Peptidomimetic Res., SmithKline Beecham Pharm. Res. Dev., King of  
Prussia, PA, 19406-0939, USA  
SO Journal of Medicinal Chemistry (1991), 34(10), 3114-25  
CODEN: JMCMAR; ISSN: 0022-2623  
DT Journal  
LA English  
GI

Ac-Cys-MeArg-Gly-Asp-Pen-NH<sub>2</sub> II

AB The development of potent antithrombotic agents from the fibrinogen  
platelet receptor binding sequences Fg- $\alpha$  572-575  
[Ac-Arg-Gly-Asp-Ser-NH<sub>2</sub> (I)] and Fg- $\gamma$  400-411 (His-His-Leu-Gly-Gly-  
Ala-Lys-Gln-Ala-Gly-Asp-Val), believed to be a cryptic RGD-type sequence,  
is described. Tetrapeptide I is capable of inhibiting platelet  
aggregation in vitro at high concns., IC<sub>50</sub> 91.3  $\pm$  0.1  $\mu$ M due to low  
platelet fibrinogen receptor affinity relative to fibrinogen. I is also  
unstable to plasma, suffering total loss of in vitro activity upon  
incubation in platelet rich plasma for 3 h (T<sub>1/2</sub> 90 min). Only modest  
improvements in potency were achieved with linear analogs of I, while  
dramatic results were achieved with cyclic analogs, culminating in the  
cyclic disulfide II (Pen = penicillamine) (SK&F 106760) with improved  
plasma stability (100% activity after 3 h), affinity, and potency. The  
affinity of II is 2 orders of magnitude greater than that of I. The  
affinity of II constitutes a first potent small peptide entry into the  
class of novel antithrombotic agents called fibrinogen receptor  
antagonists.

IT 126053-52-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and antiaggregatory activity of)

L41 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1990:403752 HCAPLUS  
DN 113:3752  
TI Synthetic peptides bind to high-affinity thrombin receptors and modulate  
thrombin mitogenesis  
AU Glenn, Kevin C.; Frost, Gloria H.; Bergmann, John S.;  
Carney, Darrell H.  
CS Monsanto Corp., USA  
SO Peptide Research (1988), 1(2), 65-73  
CODEN: PEREEO; ISSN: 1040-5704  
DT Journal  
LA English  
AB Initiation of cell proliferation by thrombin (I) require signals generated  
by I interaction with specific high-affinity receptors and I enzymic  
activity. By using synthetic peptides representing various domains of I,  
a region adjacent to the proteolytic pocket of I which confers  
high-affinity binding and generation of mitogenic signals was identified.  
One peptide, representing residues 508-530 of human prothrombin

(p508-530), inhibits  $\leq 70\%$  of the specific binding of  $^{125}\text{I}$ -labeled  $\alpha\text{-I}$  at concns. of  $< 100\text{ nM}$ , enhances the ability of I to stimulate DNA synthesis, and stimulates DNA synthesis in cells treated with  $25\text{ ng PMA/mL}$ . Thus, this peptide or a portion of this peptide appears to represent the high-affinity receptor binding domain of I. In contrast to the 23-amino acid peptide (p508-530), the tetrapeptide RGDA (p517-520) contained in this region competes for  $^{125}\text{I}$ -labeled I-thrombin binding at concns. of  $100\text{--}2000\text{ nM}$ , but inhibits rather than stimulates the mitogenic effects of  $\alpha\text{-I}$  thrombin. Nonhomologous peptides, or fibronectin-specific peptides (such as RGDS or GRGDSP) do not compete for  $^{125}\text{I}$ -labeled  $\alpha\text{-I}$  binding and have no effect on thrombin mitogenesis. Therefore, peptides representing portions of the binding domain of I: (1) can generate receptor-occupancy related signals that enhance I mitogenesis and are themselves mitogenic in cells treated with PMA; or (2) in the case of RGDA (which may be too small to generate signals), can act as antagonists, inhibiting the mitogenic effects of I by preventing I-receptor interaction.

IT **121341-81-9**

RL: BIOL (Biological study)

(of thrombin, high-affinity receptor binding of and mitogenesis with fibroblast by thrombin modulation by)

IT **93674-98-7**

RL: BIOL (Biological study)

(thrombin binding to receptor on fibroblasts competition by and mitogenic effects of thrombin inhibition by)

L41 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1990:158983 HCAPLUS

DN 112:158983

TI Preparation of peptides as blood platelet aggregation inhibitors

IN Ali, Fadia El-Fehail; Samanen, James Martin; Shebuski, Ronald John

PA SmithKline Beckman Corp., USA

SO Eur. Pat. Appl., 56 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE         | APPLICATION NO. | DATE         |
|------|---|------|--------------|-----------------|--------------|
| PI   | EP 341915   | A2   | 19891115     | EP 1989-304541  | 19890505 <-- |
|      | EP 341915   | A3   | 19901212     |                 |              |
|      | EP 341915   | B1   | 19970917     |                 |              |
|      | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |              |                 |              |
|      | DK 8902229  | A    | 19891110     | DK 1989-2229    | 19890505 <-- |
|      | AT 158305   | E    | 19971015     | AT 1989-304541  | 19890505 <-- |
|      | FI 8902208  | A    | 19891110     | FI 1989-2208    | 19890508 <-- |
|      | NO 8901870  | A    | 19891110     | NO 1989-1870    | 19890508 <-- |
|      | HU 49891  | A2   | 19891128     | HU 1989-2203    | 19890508 <-- |
|      | HU 205368   | B    | 19920428     |                 |              |
|      | ZA 8903375  | A    | 19900425     | ZA 1989-3375    | 19890508 <-- |
|      | AU 8934588  | A1   | 19891109     | AU 1989-34588   | 19890509 <-- |
|      | JP 02062892   | A2   | 19900302     | JP 1989-115915  | 19890509 <-- |
|      | JP 2755351  | B2   | 19980520     |                 |              |
|      | CN 1040203  | A    | 19900307     | CN 1989-104419  | 19890509 <-- |
|      | US 5849690  | A    | 19981215     | US 1992-918487  | 19920722 <-- |
| PRAI | US 1988-191515  |      | 19880509 <-- |                 |              |
|      | US 1989-335306  |      | 19890410 <-- |                 |              |

OS MARPAT 112:158983

GI For diagram(s), see printed CA Issue.

AB X-(A)m-B-Gly-Asp-(C)n-Y [X = Arg, HArg, (Me<sub>2</sub>)Arg, (Et<sub>2</sub>)Arg, Ala, etc.; B = Arg, HArg, (Me<sub>2</sub>)Arg, (Et<sub>2</sub>)Arg, etc.; C = D- or L-amino acid residues, e.g., Tyr, Phe; Y = (substituted) amino, alkoxy, etc.; X = (substituted) amino; m, n = 0, 1] and the cyclic peptides I [A1 = D- or L-amino acid

residue, e.g., Arg, HArg; B = D- or L-amino acid chosen from Arg, HArg, (Me<sub>2</sub>) Arg, (Et<sub>2</sub>) Arg, Lys; C1 = D- or L-amino acid residue, e.g., Tyr; Y = (substituted) amino, alkoxy; X = (substituted) amino, H; Z1 = D- or L-Cys, Pen, APmp; Z2 = any of the definitions given by Z1; m, n = 0, 1; HArg = homoarginine residue; Pen = L-penicillamine residue; APmp = 2-amino-3,3-(cyclopentamethylene)-3-mercaptopropionic acid residue], useful as blood platelet aggregation inhibitors, are prepared

Na-AcCys(Et)-MeArg(Tos)-Gly-Asp(OChx)-Ser(Bzl)-Cys(4-MBzl)-MBHA [Chxe = cyclohexyl, MBzl = methylbenzyl, MBHA = methylbenzhydrylamine resin] (preparation given) was treated with HF (for removal of resin and deprotection), the crude product extracted with 50% HOAc, the resulting

solution

diluted with deionized H<sub>2</sub>O, and the resulting mixture adjusted to pH 7.5 with concentrated NH<sub>4</sub>OH to give Na-Ac-cyclo(S,S)-Cys-MeArg-Gly-Asp-Ser-Cys-NH<sub>2</sub>, which showed an IC<sub>50</sub> of 1.1 mL against blood platelet aggregation.

IT 126053-52-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as blood platelet aggregation inhibitor)

IT 126054-18-0DP, methylbenzhydrylamine resin-bound

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for blood platelet aggregation inhibitors)

L41 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:433675 HCAPLUS

DN 111:33675

TI Thrombin-derived polypeptides, pharmaceutical compositions containing them and their use in wound healing, inhibition of scar formation, inhibition of tumor metastasis or angiogenesis, etc

IN Carney, Darrell H.; Glenn, Kevin C.

PA University of Texas System, USA

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
| PI   | WO 8803151  | A2   | 19880505 | WO 1987-US2882  | 19871030 <-- |
|      | WO 8803151  | A3   | 19880728 |                 |              |
|      | W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU |      |          |                 |              |
|      | RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG                    |      |          |                 |              |
|      | US 5352664  | A    | 19941004 | US 1986-925201  | 19861031 <-- |
|      | AU 8782399  | A1   | 19880525 | AU 1987-82399   | 19871030 <-- |
|      | EP 328552   | A1   | 19890823 | EP 1987-907652  | 19871030 <-- |
|      | EP 328552   | B1   | 19940518 |                 |              |
|      | EP 328552   | B2   | 19970502 |                 |              |
|      | R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE   |      |          |                 |              |
|      | JP 02501028   | T2   | 19900412 | JP 1987-507053  | 19871030 <-- |
|      | JP 3054150  | B2   | 20000619 |                 |              |
|      | AT 105842   | E    | 19940615 | AT 1987-907652  | 19871030 <-- |
| PRAI | US 1986-925201  | A    | 19861031 | <--             |              |
|      | EP 1987-907652  | A    | 19871030 | <--             |              |
|      | WO 1987-US2882  | A    | 19871030 | <--             |              |

AB Synthetic thrombin derivs. are described which bind to cell surface thrombin receptors and either stimulate or inhibit thrombin receptor occupancy signals. The stimulatory peptides stimulate DNA synthesis in cells treated with nonmitogenic concns. of  $\alpha$ -thrombin or phorbol myristate acetate. The peptides are used to promote cell growth and wound healing or to inhibit scar formation, tissue adhesions, and tumor metastasis and angiogenesis. Residues 508-530 of thrombin were identified as a site probably involved in receptor binding on the basis of x-ray

crystallog. data and computer anal. of hydrophobicity and secondary structural features. A peptide corresponding to this region was synthesized by the solid-phase method and shown to competitively inhibit binding of 125I-labeled  $\alpha$ -thrombin to thrombin receptors on cultured fibroblasts and to induce mitogenesis (thymidine-3H incorporation by cultured fibroblasts). This region also contained the **serine proteinase**-homologous domain. A subpeptide (residues 517-520) (fibronectin-homologous domain) also bound to the thrombin receptor, but did not induce mitogenesis and inhibited  $\alpha$ -thrombin-induced mitogenesis by shifting the dose-response curve of the cells to  $\alpha$ -thrombin.

IT 93674-98-7

RL: BIOL (Biological study)  
(peptides containing, as thrombin receptor-binding domain)

IT 37259-58-8, **Serine esterase**

RL: BIOL (Biological study)  
(thrombin peptide derivative homologous to, receptor binding and signal generation by, wound healing and scar formation and tumor inhibition in relation to)

IT 121341-81-9

RL: BIOL (Biological study)  
(thrombin receptor binding and signal generation by, wound healing and scar formation and tumor inhibition in relation to)

L41 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1985:3775 HCAPLUS

DN 102:3775

TI Variants of the cell recognition site of fibronectin that retain attachment-promoting activity

AU Pierschbacher, Michael D.; Ruoslahti, Erkki

CS Cancer Res. Cent., La Jolla Cancer Res. Found., La Jolla, CA, 92037, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1984), 81(19), 5985-8  
CODEN: PNASA6; ISSN: 0027-8424

DT Journal

LA English

AB A tetrapeptide sequence, Arg-Gly-Asp-Ser, is the minimal structure recognized by cells in the large, adhesive glycoprotein fibronectin. The structural requirements for this cell recognition site were defined in human fibronectin by testing several synthetic variants of the active tetrapeptide sequence. The conservative substitutions of lysine for arginine, alanine for glycine, or glutamic acid for aspartic acid each resulted in abrogation of the cell attachment-promoting activity characteristic of the natural sequence. However, in the position of the serine residue, some alterations were compatible with activity. Assay of peptides containing the structure Arg-Gly-Asp-X (where X = another amino acid residue) showed that an Arg-Gly-Asp-Val sequence predicted to be present in some, but not all, fibronectin mols. as a result of alternative RNA splicings could potentially create a 2nd cell attachment site in those fibronectin polypeptide chains carrying that sequence. Other proteins with potentially active Arg-Gly-Asp-X sequences include several proteins that are known to interact with the cell surface. Among these are various types of collagens, thrombin, and discoidin, a slime-mold protein that may be involved in cell aggregation. Apparently, the arginine, glycine, and aspartic acid residues are absolutely required for the cell recognition, and the surrounding amino acids may play a role in the expression of cell attachment activity in fibronectin and other proteins having this sequence. This recognition mechanism may be common to a number of biol. systems.

IT 93674-98-7

RL: BIOL (Biological study)  
(of fibronectin cell recognition site, of human)

=> fil reg

FILE 'REGISTRY' ENTERED AT 12:14:13 ON 26 FEB 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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DICTIONARY FILE UPDATES: 24 FEB 2004 HIGHEST RN 654050-72-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> => d ll sqide can

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 390773-29-2 REGISTRY

CN L-Valine, L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1: PN: WO0205836 SEQID: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 10

PATENT ANNOTATIONS (PNTE):

| Sequence  | Patent       |
|-----------|--------------|
| Source    | Reference    |
| Not Given | WO2002005836 |
|           | claimed      |
|           | SEQID 1      |

SEQ 1 CEGDSGGPFV

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HITS AT: 1-10

MF C40 H58 N10 O16 S

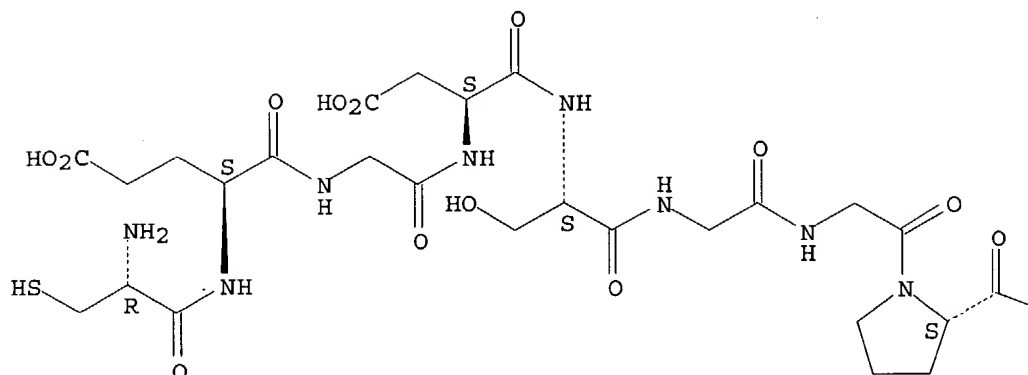
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

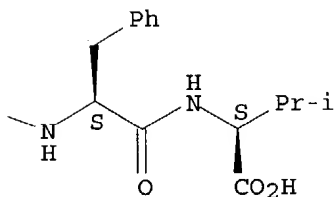
Absolute stereochemistry.



PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:145245

REFERENCE 2: 136:129084

=&gt; d l2 sqide can tot

L2 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 184906-58-9 REGISTRY  
 CN Cyclo(L-alanyl-L-arginylglycyl-L- $\alpha$ -aspartyl) (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 4  
 NTE cyclic

SEQ 1 ARGD

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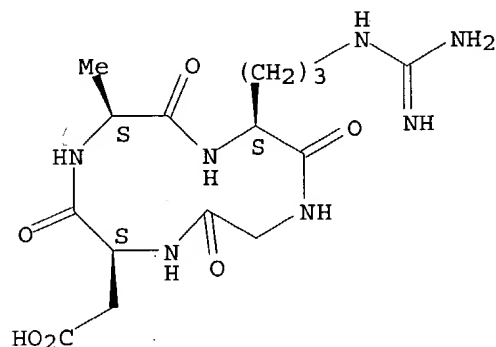
HITS AT: 1, 2-4

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

MF C15 H25 N7 O6

SR CA

Absolute stereochemistry.



L2 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 177485-29-9 REGISTRY

CN L-Alanine, N-[N-[N-[N5-[bis[[[(phenylmethoxy)carbonyl]amino]methylene]-L-ornithyl]glycyl]-L- $\alpha$ -aspartyl]-, 4-(phenylmethyl) ester (9CI) (CA  
INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

| type         | location | description                   |
|--------------|----------|-------------------------------|
| modification | Arg-1    | (phenylmethoxy)carbonyl<2; Z> |
| modification | Asp-3    | phenylmethyl<Bzl>             |

SEQ 1 RGDA

====

HITS AT: 1-4

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

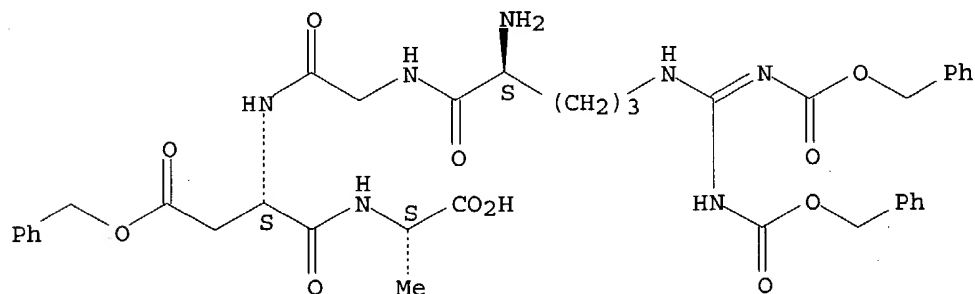
MF C38 H45 N7 O11

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

L2 ANSWER 3 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 177485-26-6 REGISTRY  
CN L-Alaninamide, N5-[bis[[ (phenylmethoxy)carbonyl]amino]methylene]-L-  
ornithylglycyl-L- $\alpha$ -aspartyl-N-[O-(N-acetyl- $\alpha$ -neuraminosyl)-  
(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-[6-deoxy- $\alpha$ -L-  
galactopyranosyl-(1 $\rightarrow$ 3)]-2-(acetylamino)-2-deoxy- $\beta$ -D-  
glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4'''-ester (9CI)  
(CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
SQL 4  
NTE modified (modifications unspecified)

| type         | location | description                   |
|--------------|----------|-------------------------------|
| modification | Arg-1    | (phenylmethoxy)carbonyl<2; Z> |
| modification | Asp-3    | phenylmethyl<Bzl>             |

SEQ 1 RGDA

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HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

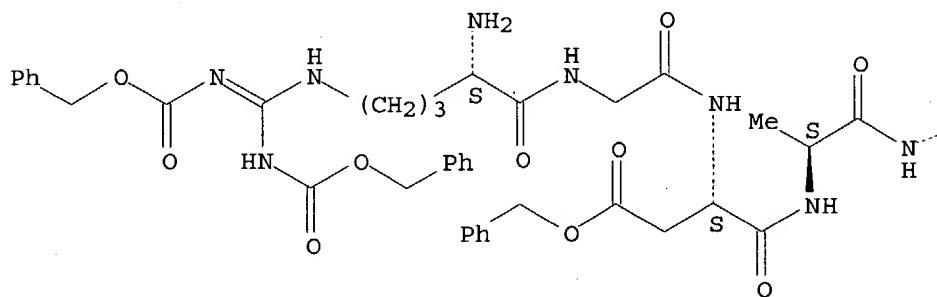
MF C69 H94 N10 O31

SR CA

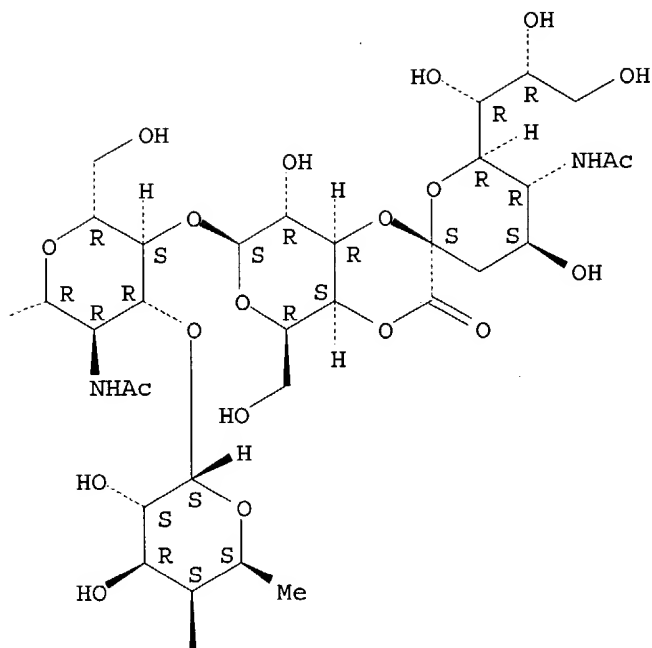
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.  
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



PAGE 2-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

L2 ANSWER 4 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 176244-98-7 REGISTRY  
 CN L-Alaninamide, L-arginylglycyl-L- $\alpha$ -glutamyl-N-[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-[6-deoxy- $\alpha$ -L-galactopyranosyl-(1 $\rightarrow$ 3)]-2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 4  
 NTE modified (modifications unspecified)

SEQ 1 RGDA  
 =====

HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

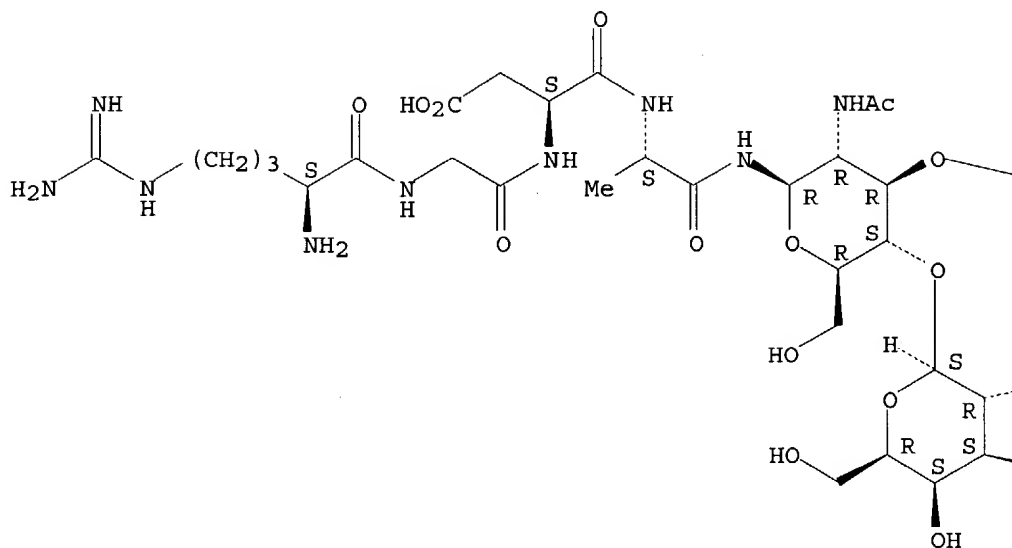
MF C46 H78 N10 O28

SR CA

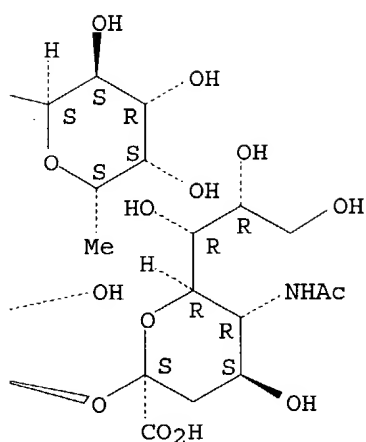
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:34044

REFERENCE 2: 124:343845

L2 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169393-79-7 REGISTRY  
 CN L-Alaninamide, L-arginylglycyl-L- $\alpha$ -aspartyl-N-[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-[6-deoxy- $\alpha$ -L-galactopyranosyl-(1 $\rightarrow$ 3)]-2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]-, 3-(phenylmethyl) ester (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

| type         | location | description       |
|--------------|----------|-------------------|
| modification | Asp-3    | phenylmethyl<Bzl> |

SEQ 1 RGDA

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HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

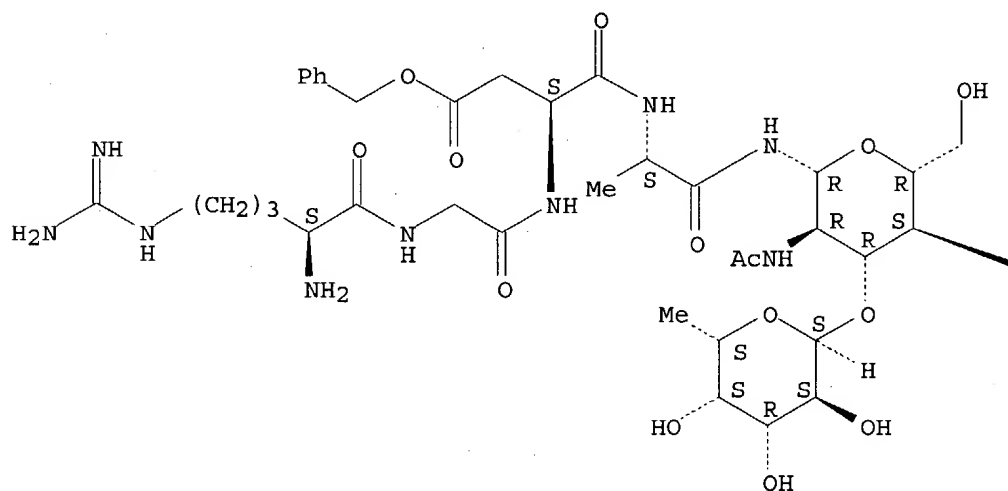
MF C53 H84 N10 O28

SR CA

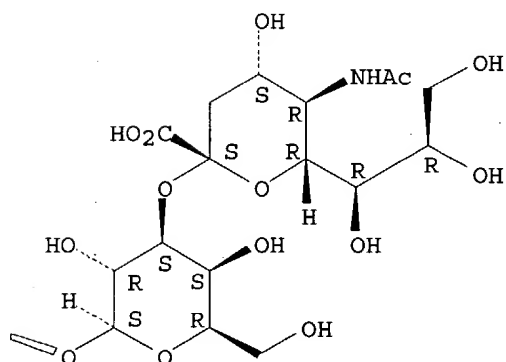
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

L2 ANSWER 6 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 169393-78-6 REGISTRY  
CN L-Alaninamide, L-arginylglycyl-L- $\alpha$ -aspartyl-N-[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-[6-deoxy- $\alpha$ -L-galactopyranosyl-(1 $\rightarrow$ 3)]-2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4'''-ester (9CI) (CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
SQL 4  
NTE modified (modifications unspecified)

| type         | location | description       |
|--------------|----------|-------------------|
| modification | Asp-3    | phenylmethyl<Bzl> |

SEQ 1 RGDA

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HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

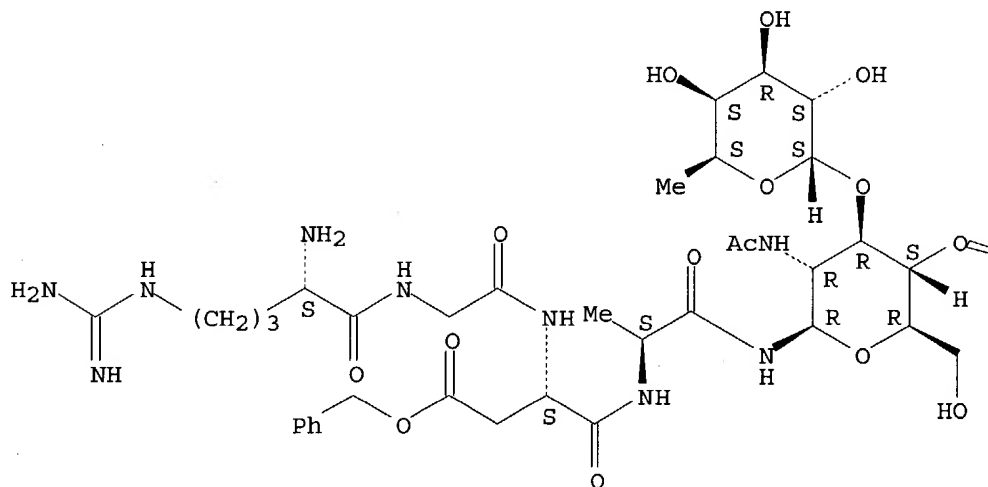
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SR CA

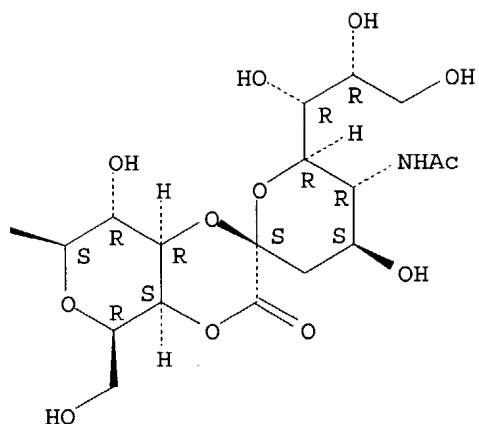
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

L2 ANSWER 7 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169393-77-5 REGISTRY  
 CN L-Alaninamide, N2-[(phenylmethoxy)carbonyl]-N5-  
 [[[(phenylmethoxy)carbonyl]amino] [(phenylmethoxy)carbonyl]imino]methyl]-L-  
 ornithylglycyl-L- $\alpha$ -aspartyl-N-[O-(N-acetyl- $\alpha$ -neuraminosyl)-  
 (2 $\rightarrow$ 3)-O-6-O-(phenylmethyl)- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-  
 [6-deoxy-2,3,4-tris-O-(phenylmethyl)- $\alpha$ -L-galactopyranosyl-  
 (1 $\rightarrow$ 3)]-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)- $\beta$ -D-  
 glucopyranosyl]-, 3-(phenylmethyl) ester, intramol. 1''',4''-ester (9CI)  
 (CA INDEX NAME)  
 FS PROTEIN SEQUENCE  
 SQL 4  
 NTE modified (modifications unspecified)

| type         | location | description                   |
|--------------|----------|-------------------------------|
| modification | Arg-1    | (phenylmethoxy)carbonyl<3; Z> |
| modification | Asp-3    | phenylmethyl<Bzl>             |

SEQ 1 RGDA  
 =====  
 HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*  
 MF C112 H130 N10 O33  
 SR CA  
 LC STN Files: CA, CAPLUS





HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

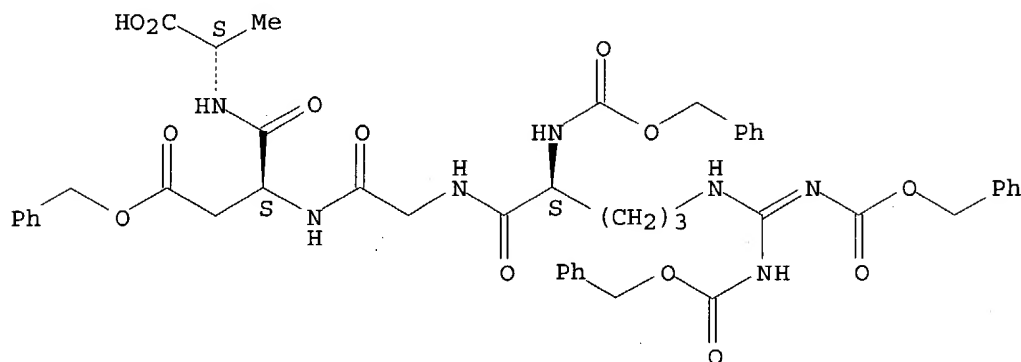
MF C46 H51 N7 O13

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

Double bond geometry unknown.



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:286699

L2 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 154331-63-2 REGISTRY

CN L-Alanine, N-[N-(N-L-arginylglycyl)-L- $\alpha$ -aspartyl]-3-cyclohexyl-  
(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

| type         | location | description     |
|--------------|----------|-----------------|
| modification | Ala-4    | cyclohexyl<Chx> |

SEQ 1 RGDA

====

HITS AT: 1-4

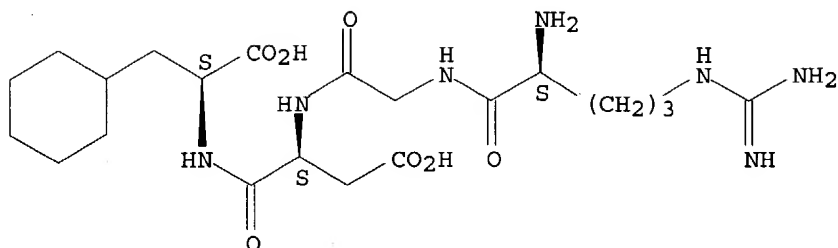
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

MF C21 H37 N7 O7

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:24242

REFERENCE 2: 120:260551

L2 ANSWER 10 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN

RN 154331-49-4 REGISTRY

CN L-Alanine, N-[N-(N-L-arginylglycyl)-L- $\alpha$ -aspartyl]-3-(1-naphthalenyl)-  
(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 4

NTE modified (modifications unspecified)

| type         | location | description            |
|--------------|----------|------------------------|
| modification | Ala-4    | 1-naphthalenyl<1-Naph> |

SEQ 1 RGDA

====

HITS AT: 1-4

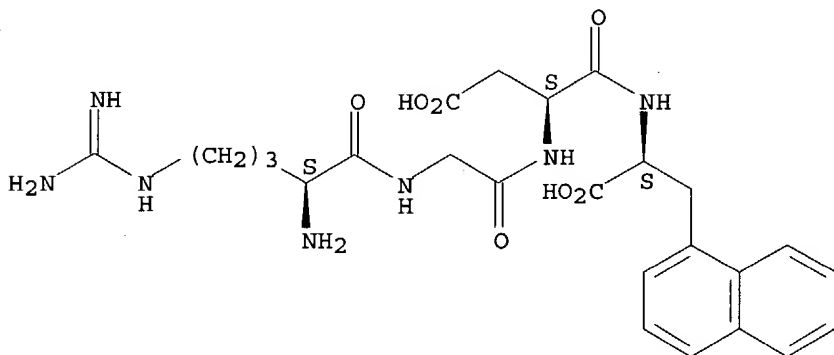
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

MF C25 H33 N7 O7

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 120:260551

L2 ANSWER 11 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 126054-18-0 REGISTRY  
 CN L-Alaninamide, N2-acetyl-N5-[imino[[ (4-methylphenyl)sulfonyl]amino]methyl]-  
 L-ornithylglycyl-L- $\alpha$ -aspartyl-3-(2-naphthalenyl)-, phenylmethyl  
 ester (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 4  
 NTE modified

| type          | location | description                   |
|---------------|----------|-------------------------------|
| terminal mod. | Arg-1    | N-acetyl                      |
| terminal mod. | Ala-4    | C-terminal amide              |
| modification  | Arg-1    | (4-methylphenyl)sulfonyl<Tos> |
| modification  | Asp-3    | phenylmethyl<Bzl>             |
| modification  | Ala-4    | 2-naphthalenyl<2-Naph>        |

SEQ 1 RGDA

====

HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

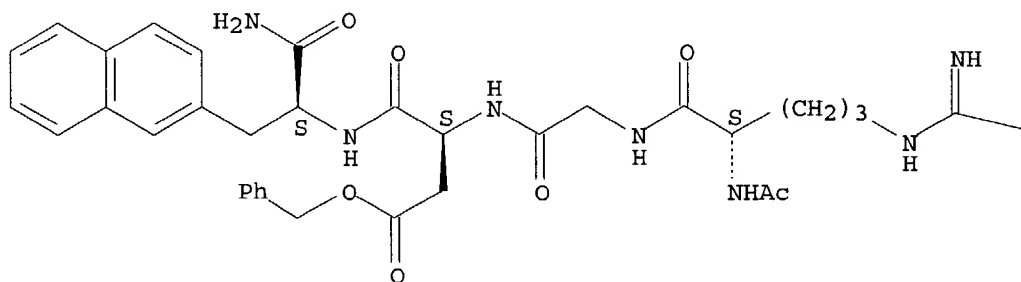
MF C41 H48 N8 O9 S

SR CA

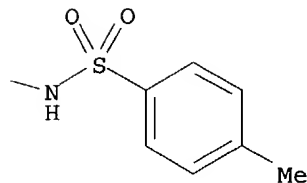
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 112:158983

L2 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 126053-52-9 REGISTRY  
 CN L-Alaninamide, N2-acetyl-L-arginylglycyl-L- $\alpha$ -aspartyl-3-(2-naphthalenyl)- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 4  
 NTE modified

| type          | location | description            |
|---------------|----------|------------------------|
| terminal mod. | Arg-1    | N-acetyl               |
| terminal mod. | Ala-4    | C-terminal amide       |
| modification  | Ala-4    | 2-naphthalenyl<2-Naph> |

SEQ 1 RGDA

====

HITS AT: 1-4

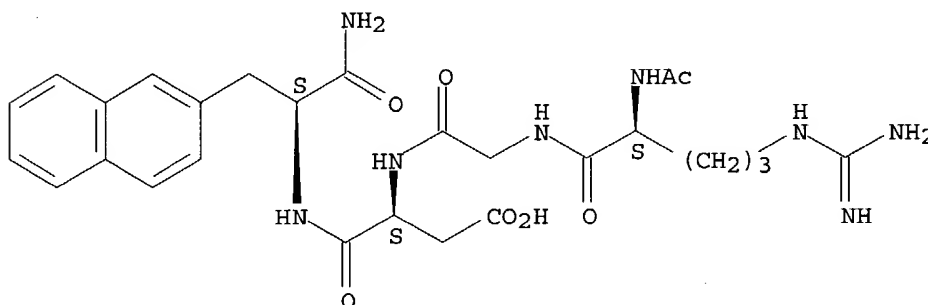
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

MF C27 H36 N8 O7

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 115:183848

REFERENCE 2: 112:158983

L2 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 93674-98-7 REGISTRY  
 CN L-Alanine, L-arginylglycyl-L- $\alpha$ -aspartyl- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN L-Alanine, N-[N-(N-L-arginylglycyl)-L- $\alpha$ -aspartyl]-  
 OTHER NAMES:  
 CN 1: PN: US6630572 SEQID: 1 claimed sequence  
 CN 24: PN: US6376248 SEQID: 23 unclaimed sequence  
 CN 2: PN: WO0205836 SEQID: 2 claimed protein  
 CN 43: PN: US6051429 SEQID: 23 unclaimed sequence  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 4

PATENT ANNOTATIONS (PNTE):

| Sequence Source | Patent Reference                   |
|-----------------|------------------------------------|
| Not Given       | US6051429<br>unclaimed<br>SEQID 23 |
|                 | US6376248<br>unclaimed<br>SEQID 23 |
|                 | WO2002005836<br>claimed<br>SEQID 2 |

SEQ 1 RGDA

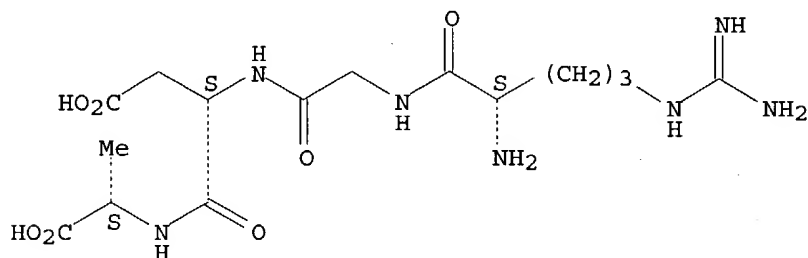
HITS AT: 1-4

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

MF C15 H27 N7 O7

LC STN Files: CA, CAPLUS, MEDLINE, TOXCENTER, USPATFULL

Absolute stereochemistry.



11 REFERENCES IN FILE CA (1907 TO DATE)  
11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:286388  
REFERENCE 2: 139:128022  
REFERENCE 3: 136:336176  
REFERENCE 4: 136:145245  
REFERENCE 5: 136:129084  
REFERENCE 6: 136:96054  
REFERENCE 7: 132:289590  
REFERENCE 8: 123:237743  
REFERENCE 9: 113:3752  
REFERENCE 10: 111:33675

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L3 ANSWER 1 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 566137-84-6 REGISTRY  
 CN L-Valinamide, N-acetyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- $\alpha$ -  
 aspartyl-L- $\alpha$ -glutamylglycyl-L-lysyl-L-arginylglycyl-L- $\alpha$ -  
 aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-  
 L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3: PN: WO03061690 PAGE: 36 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

NTE modified

| type          | location | description      |
|---------------|----------|------------------|
| terminal mod. | Ala-1    | N-acetyl         |
| terminal mod. | Val-23   | C-terminal amide |

## PATENT ANNOTATIONS (PNTE):

Sequence | Patent

Source | Reference

====+=====  
 Not Given | WO2003061690  
 | claimed PAGE  
 | 36

SEQ 1 AGYKPDEGKR GDACEGDSGG PFV

HITS AT: 1-23

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

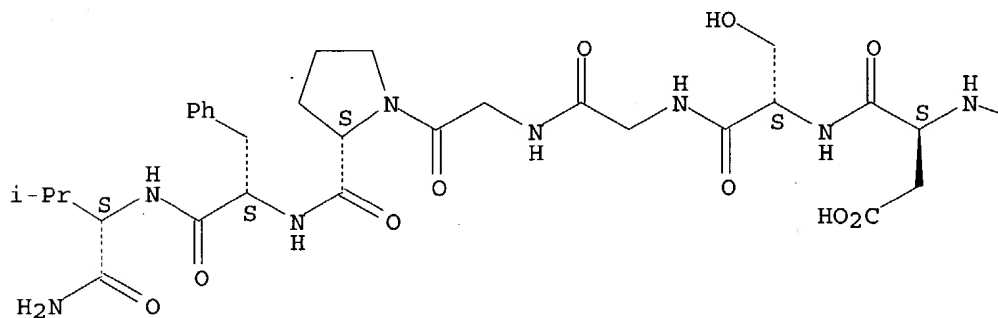
MF C99 H149 N29 O36 S

SR CA

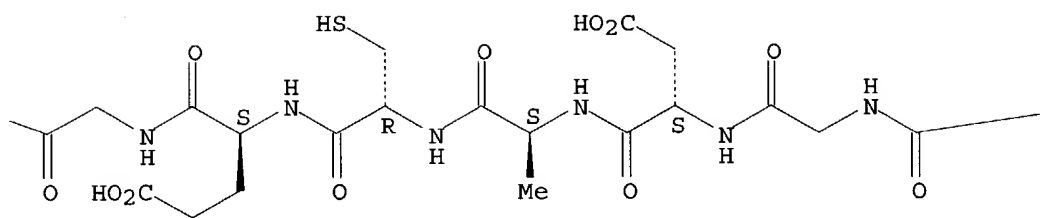
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

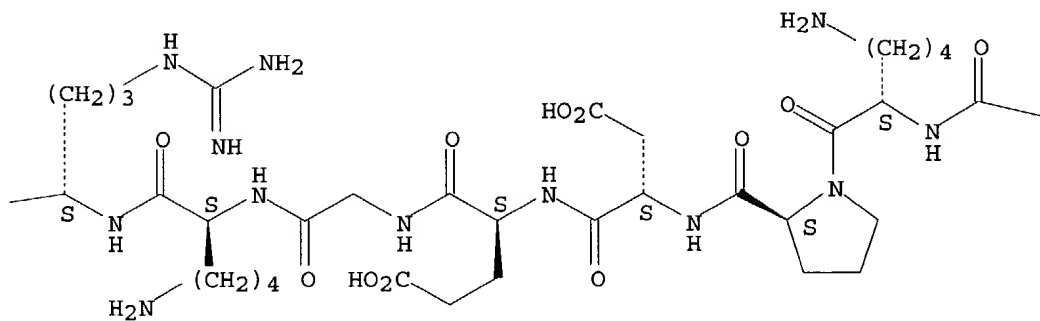
PAGE 1-A



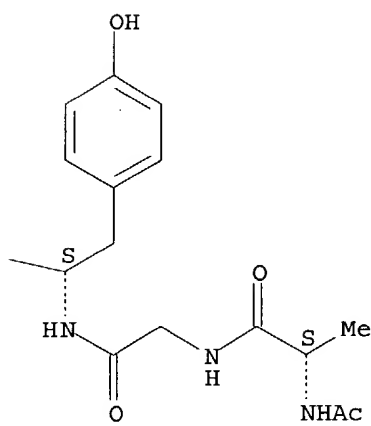
PAGE 1-B



PAGE 1-C



PAGE 1-D





## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:128057

REFERENCE 2: 139:128022

L3 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 566137-83-5 REGISTRY

CN L-Valine, N-acetyl-L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- $\alpha$ -  
aspartyl-L- $\alpha$ -glutamylglycyl-L-lysyl-L-arginylglycyl-L- $\alpha$ -  
aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-  
L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 2: PN: WO03061690 PAGE: 36 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

NTE modified

| type          | location | description |
|---------------|----------|-------------|
| terminal mod. | Ala-1    | N-acetyl    |

## PATENT ANNOTATIONS (PNTE):

Sequence | Patent

Source | Reference

=====+=====

|           |              |
|-----------|--------------|
| Not Given | WO2003061690 |
|           | claimed PAGE |
|           | 36           |

SEQ 1 AGYKPDEGKR GDACEGDSGG PFV

=====

HITS AT: 1-23

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

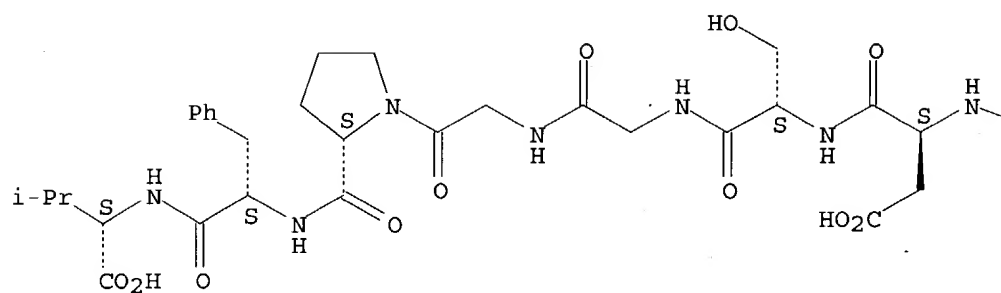
MF C99 H148 N28 O37 S

SR CA

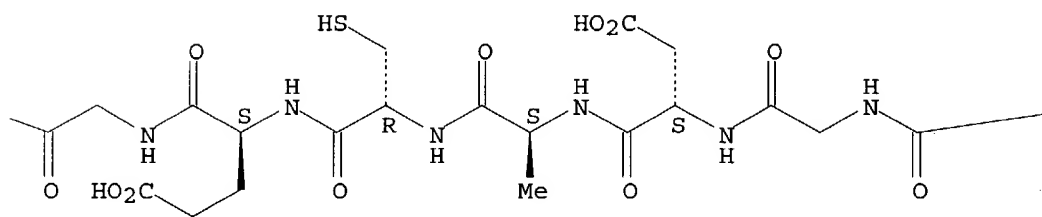
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

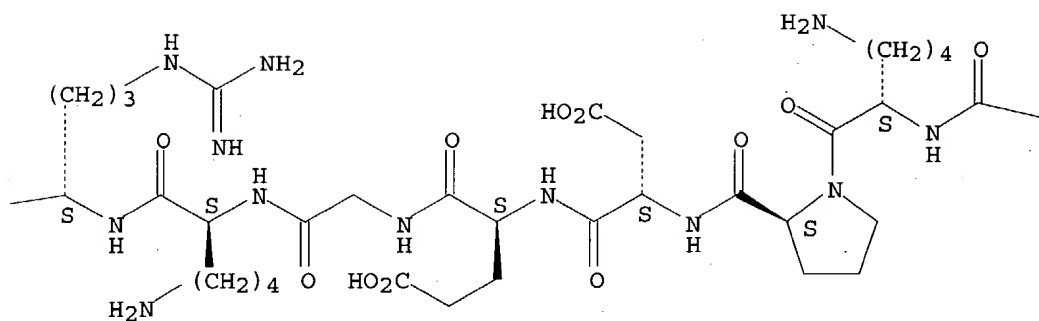
PAGE 1-A



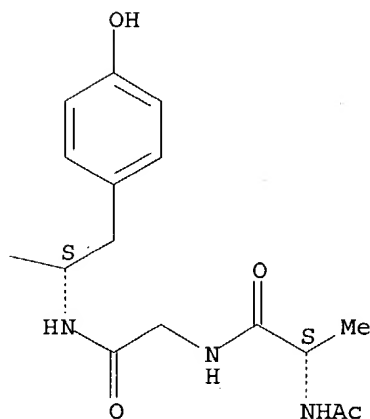
PAGE 1-B



PAGE 1-C



PAGE 1-D



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:128057

REFERENCE 2: 139:128022 .

L3 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 497221-38-2 REGISTRY

CN L-Valinamide, L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- $\alpha$ -aspartyl-L- $\alpha$ -glutamylglycyl-L-lysyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1: PN: WO03061690 PAGE: 36 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

NTE modified

| type          | location | description      |
|---------------|----------|------------------|
| terminal mod. | Val-23   | C-terminal amide |

## PATENT ANNOTATIONS (PNTE):

| Sequence  | Patent       |
|-----------|--------------|
| Source    | Reference    |
| Not Given | WO2003061690 |
|           | claimed PAGE |
|           | 36           |

SEQ 1 AGYKPDEGKR GDACEGDSGG PFV

HITS AT: 1-23

## \*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

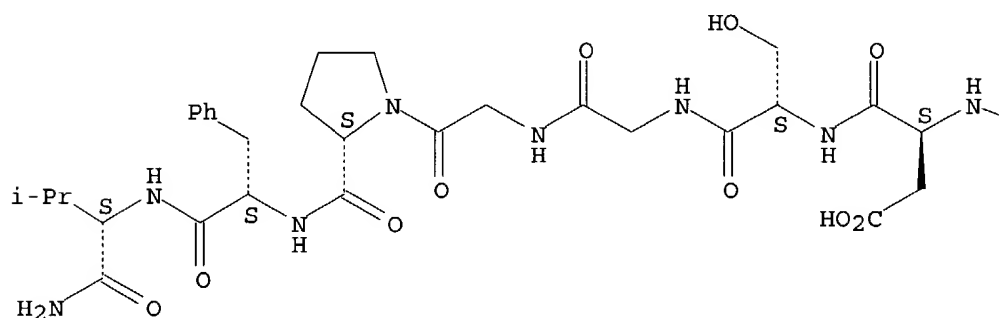
MF C97 H147 N29 O35 S

SR CA

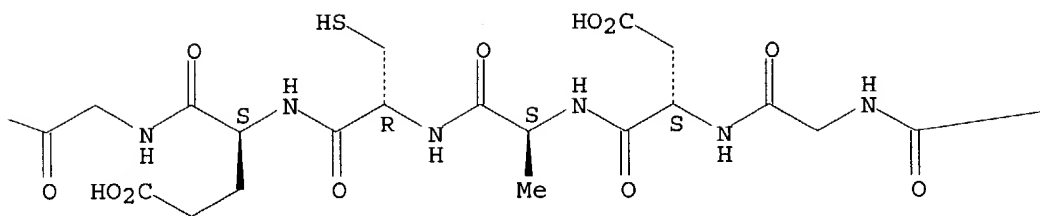
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

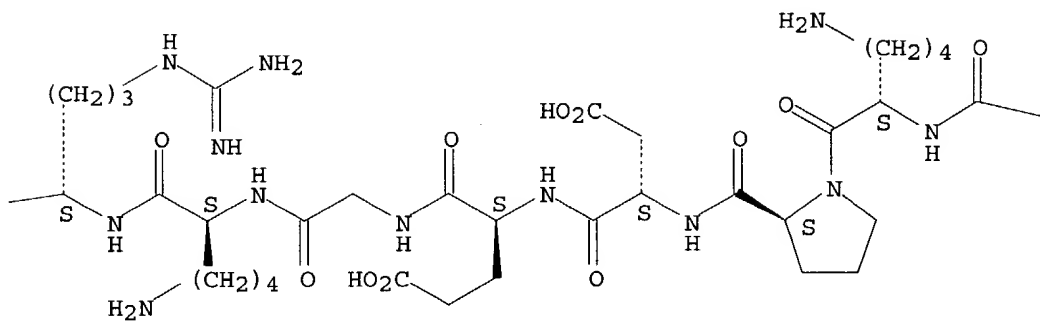
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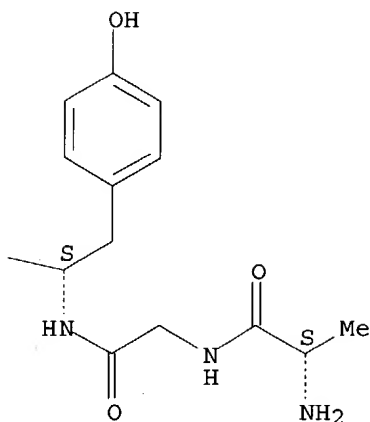
PAGE 1-B



PAGE 1-C



PAGE 1-D



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

REFERENCE 2: 139:128057

REFERENCE 3: 139:128022

REFERENCE 4: 138:180761

L3 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN

RN 121341-81-9 REGISTRY

CN L-Valine, L-alanylglycyl-L-tyrosyl-L-lysyl-L-prolyl-L- $\alpha$ -aspartyl-L- $\alpha$ -glutamylglycyl-L-lysyl-L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 3: PN: WO0205836 SEQID: 3 claimed protein

CN 8: PN: US6184342 SEQID: 8 claimed sequence

CN 8: PN: US6602978 SEQID: 8 unclaimed sequence

CN Chrysalin

CN TP 508

CN TRAP 508

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 23

PATENT ANNOTATIONS (PNTE):

| Sequence | Patent    |
|----------|-----------|
| Source   | Reference |

|           |           |
|-----------|-----------|
| Not Given | US6184342 |
|           | claimed   |
|           | SEQID 8   |

|  |              |
|--|--------------|
|  | WO2002005836 |
|  | claimed      |
|  | SEQID 3      |

SEQ 1 AGYKPDEGKR GDACEGDSGG PFV

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HITS AT: 1-23

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

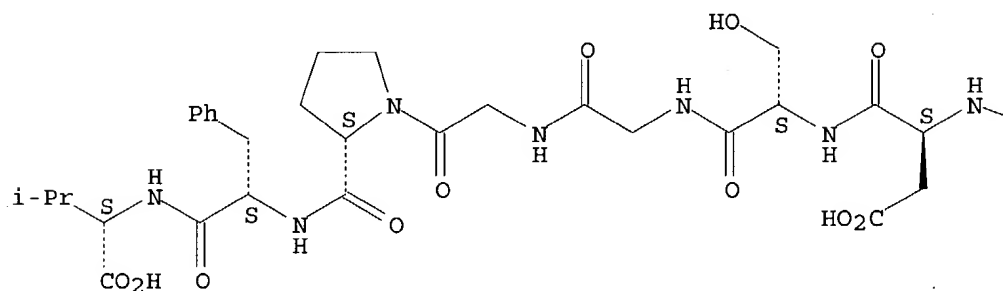
MF C97 H146 N28 O36 S

SR CA

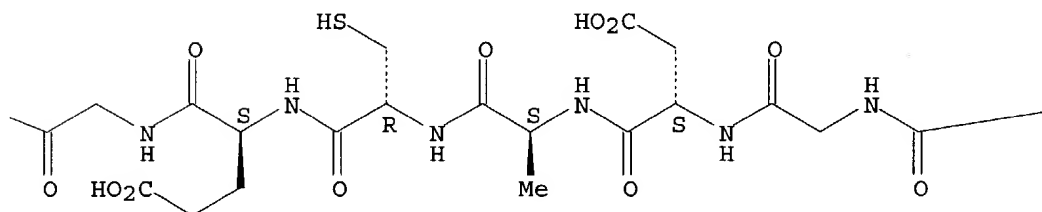
LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, IMSDRUGNEWS, IMSPATENTS,  
IMSRESEARCH, PROMT, TOXCENTER, USPATFULL

Absolute stereochemistry.

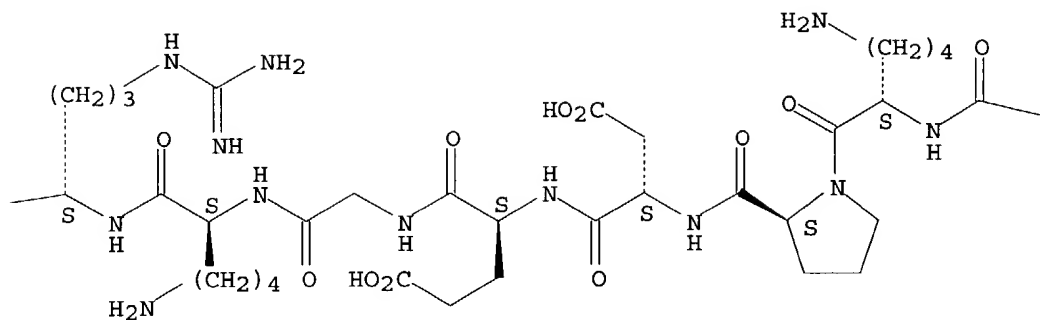
PAGE 1-A



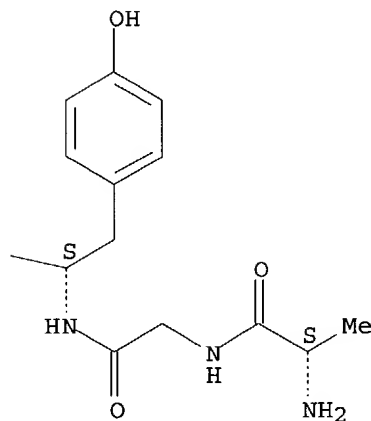
PAGE 1-B



PAGE 1-C



PAGE 1-D



21 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 21 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322  
 REFERENCE 2: 139:191912  
 REFERENCE 3: 139:148476  
 REFERENCE 4: 139:138483  
 REFERENCE 5: 139:128057  
 REFERENCE 6: 139:128022  
 REFERENCE 7: 139:12258  
 REFERENCE 8: 137:362953



REFERENCE 9: 136:129084

REFERENCE 10: 136:96054

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L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 390773-29-2 REGISTRY  
CN L-Valine, L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-  
serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 1: PN: WO0205836 SEQID: 1 claimed protein  
FS PROTEIN SEQUENCE; STEREOSEARCH  
SQL 10

## PATENT ANNOTATIONS (PNTE):

| Sequence  | Patent       |
|-----------|--------------|
| Source    | Reference    |
| =====+    | =====        |
| Not Given | WO2002005836 |
|           | claimed      |
|           | SEQID 1      |

SEQ 1 CEGDSGGPFV

=====

HITS AT: 1-10

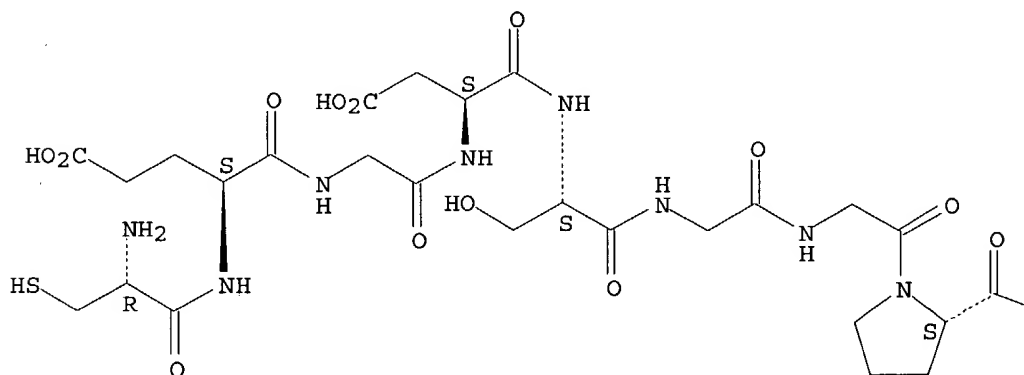
MF C40 H58 N10 O16 S

SR CA

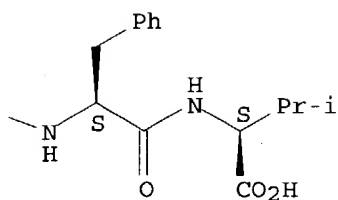
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:145245

REFERENCE 2: 136:129084

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L5 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-41-6 REGISTRY

CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L-glutaminyglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-valyl-(9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPVV

=====

HITS AT: 1-14

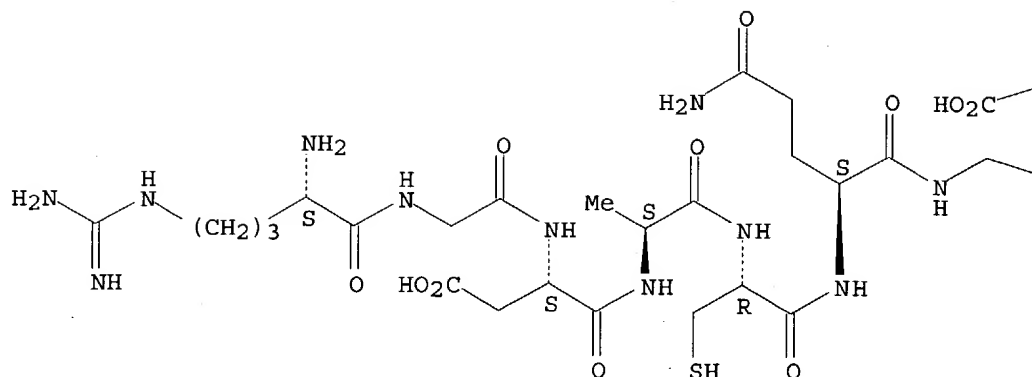
MF C51 H84 N18 O21 S

SR CA

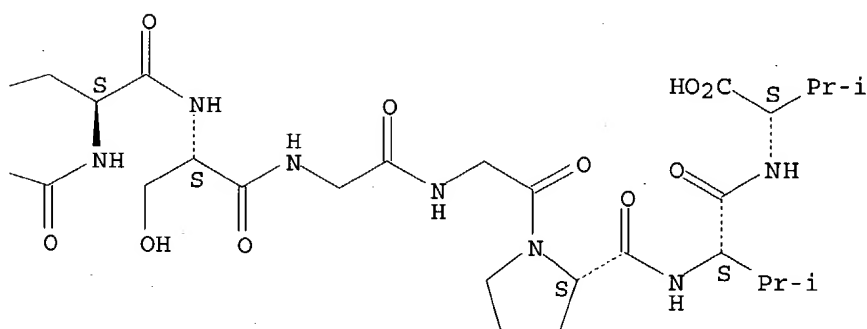
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-39-2 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L-glutaminyglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-histidyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACQGD SG GPHV

=====

HITS AT: 1-14

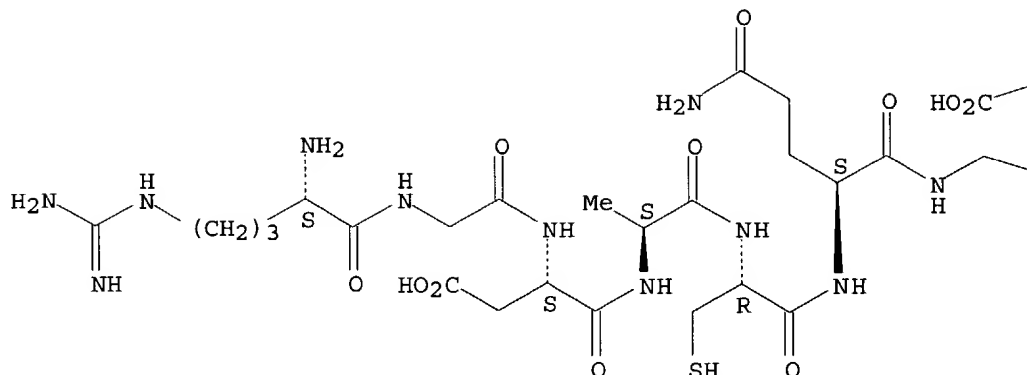
MF C52 H82 N20 O21 S

SR CA

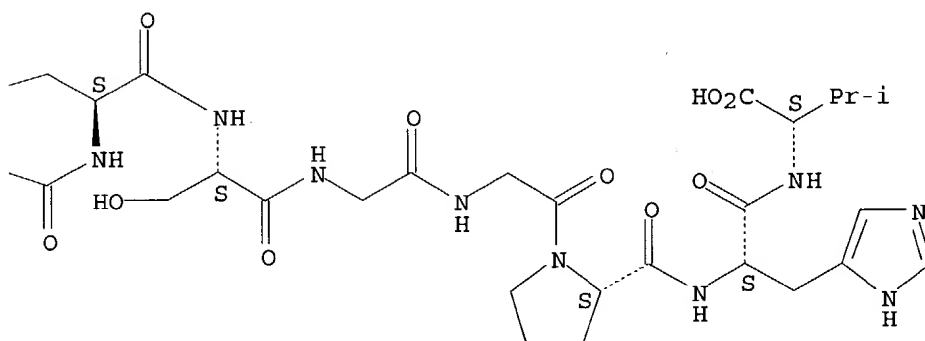
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-37-0 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L-glutaminyglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-leucyl-(9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACQGD SG GPLV

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HITS AT: 1-14

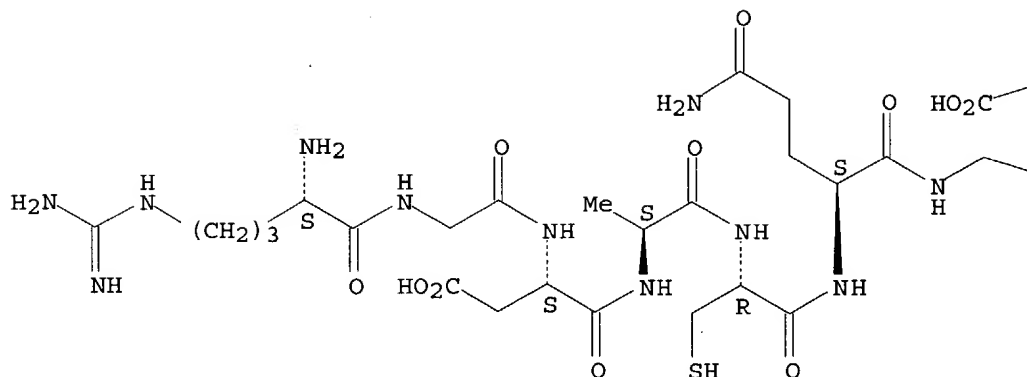
MF C52 H86 N18 O21 S

SR CA

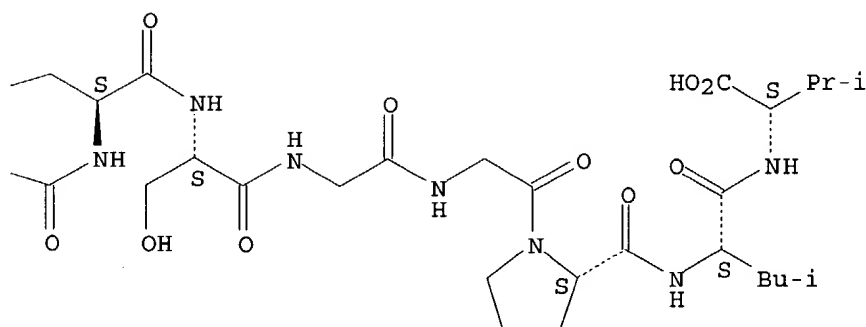
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 642984-35-8 REGISTRY

CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L-glutaminyglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-methionyl- (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 14

SEQ 1 RGDACQGDSG GPMV

=====

HITS AT: 1-14

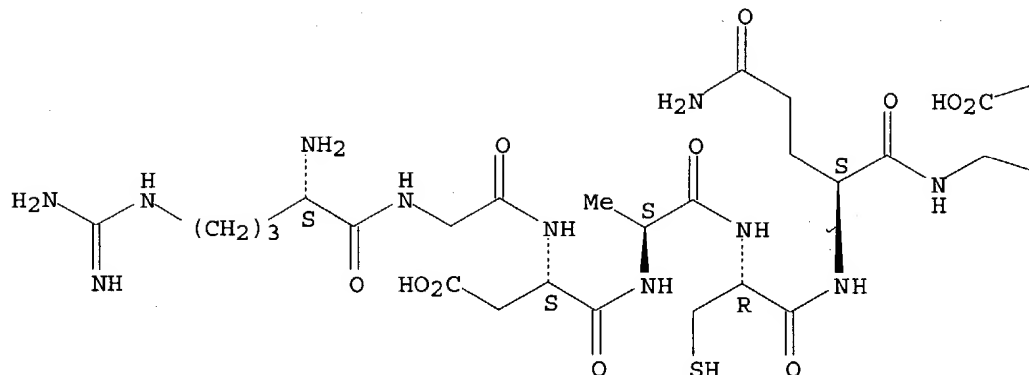
MF C51 H84 N18 O21 S2

SR CA

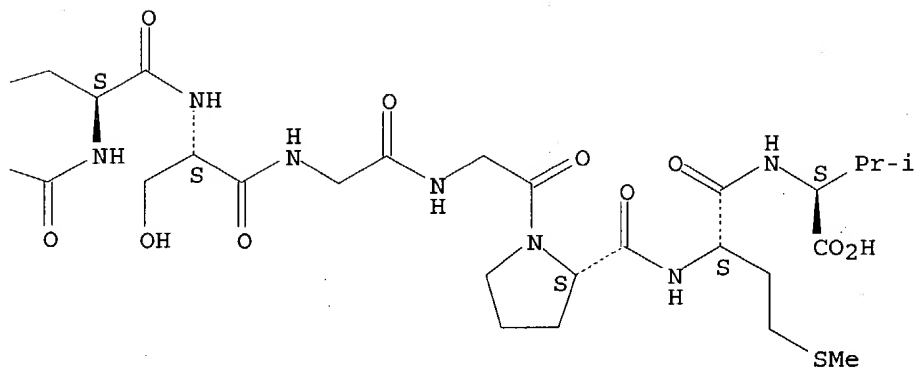
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-33-6 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L-glutaminylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACQGDSG GPFV  
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HITS AT: 1-14

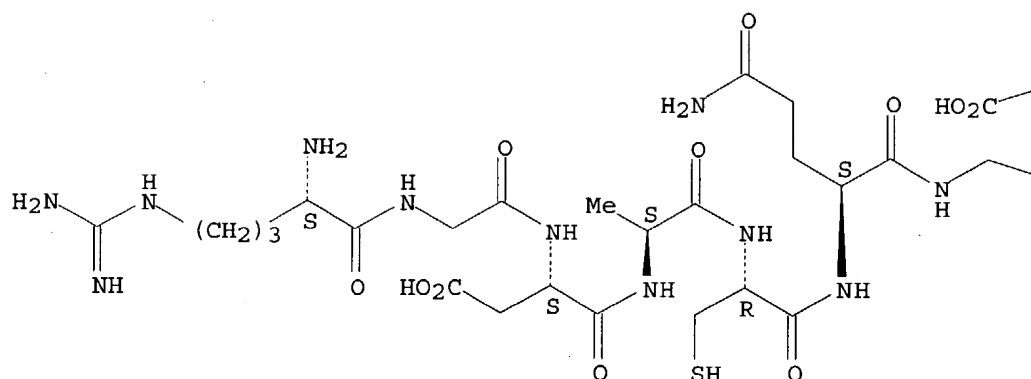
MF C55 H84 N18 O21 S

SR CA

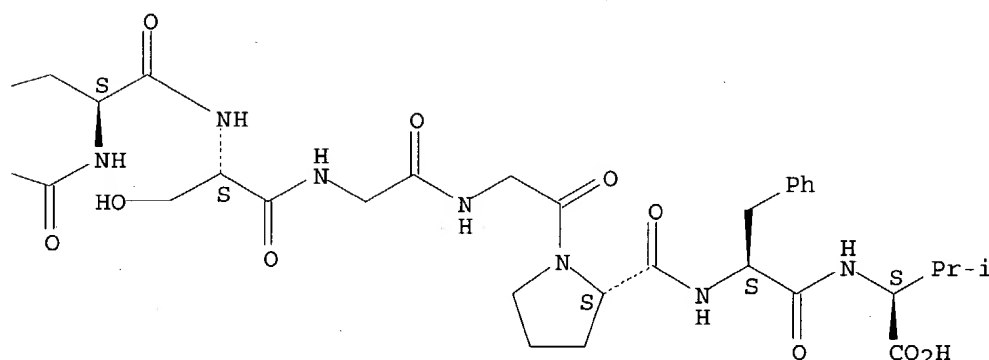
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-31-4 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-valyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACEGDSG GPVV

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HITS AT: 1-14

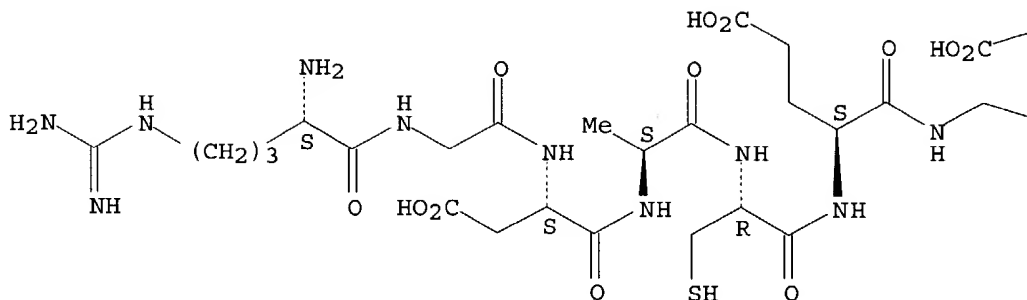
MF C51 H83 N17 O22 S

SR CA

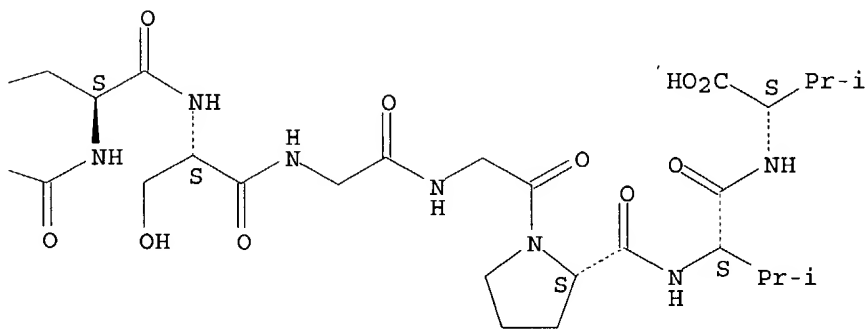
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-29-0 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-histidyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACEGDSG GPHV

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HITS AT: 1-14

MF C52 H81 N19 O22 S

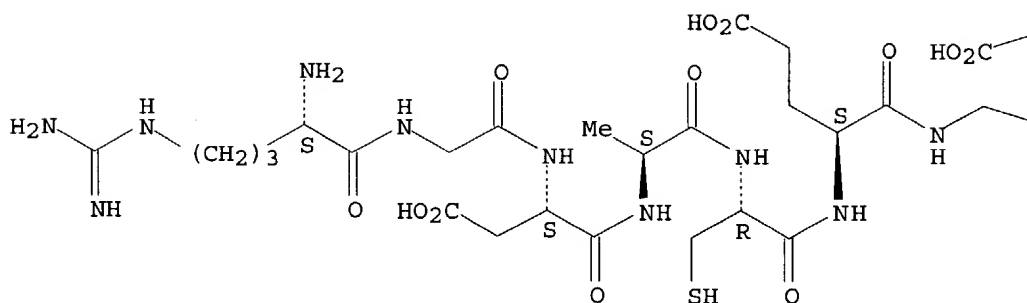
SR CA

LC STN Files: CA, CAPLUS

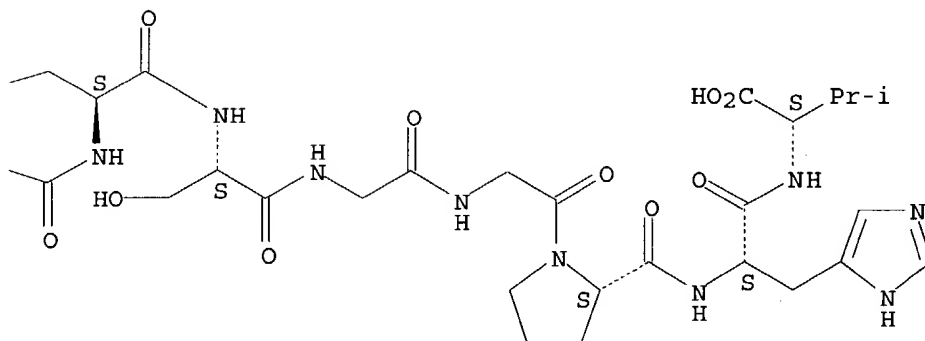
Absolute stereochemistry.



PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-27-8 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-leucyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACEGDSG GPLV

=====

HITS AT: 1-14

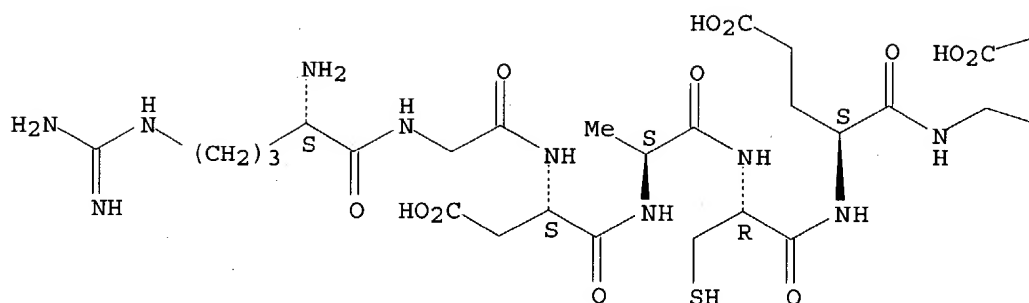
MF C52 H85 N17 O22 S

SR CA

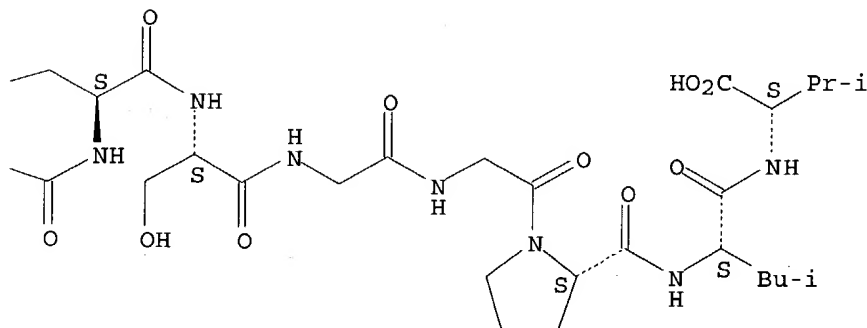
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 642984-25-6 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-methionyl- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

SEQ 1 RGDACEGDSG GPMV

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HITS AT: 1-14

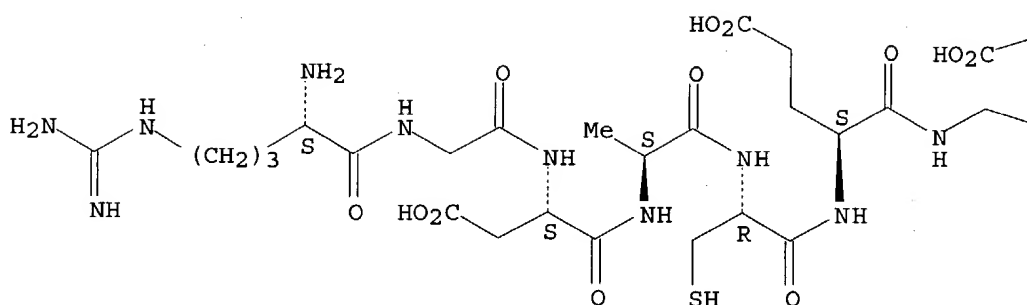
MF C51 H83 N17 O22 S2

SR CA

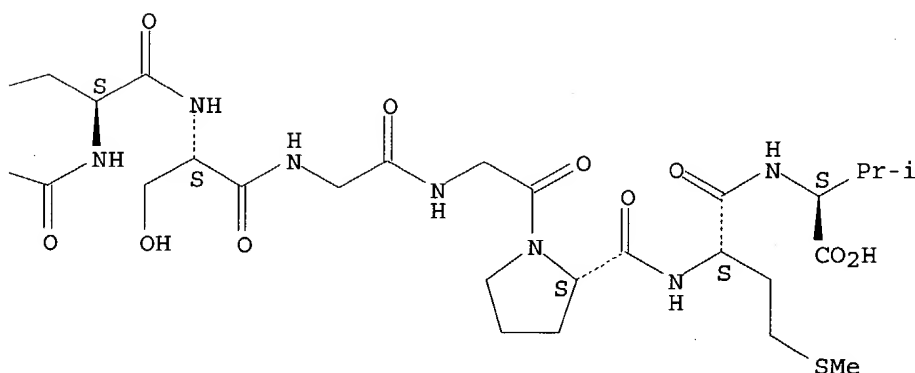
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

L5 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 146367-84-2 REGISTRY  
 CN L-Valine, L-arginylglycyl-L- $\alpha$ -aspartyl-L-alanyl-L-cysteinyl-L- $\alpha$ -glutamylglycyl-L- $\alpha$ -aspartyl-L-serylglycylglycyl-L-prolyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 7: PN: US6630572 SEQID: 7 claimed sequence  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 SQL 14

PATENT ANNOTATIONS (PNTE):

| Sequence | Patent    |
|----------|-----------|
| Source   | Reference |

|           |           |
|-----------|-----------|
| Not Given | US6630572 |
|           | claimed   |
|           | SEQID 7   |

SEQ 1 RGDACEGDSG GPFV

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HITS AT: 1-14

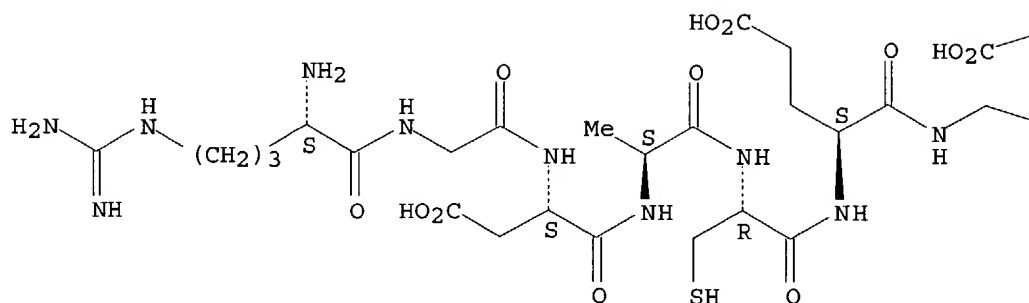
MF C55 H83 N17 O22 S

SR CA

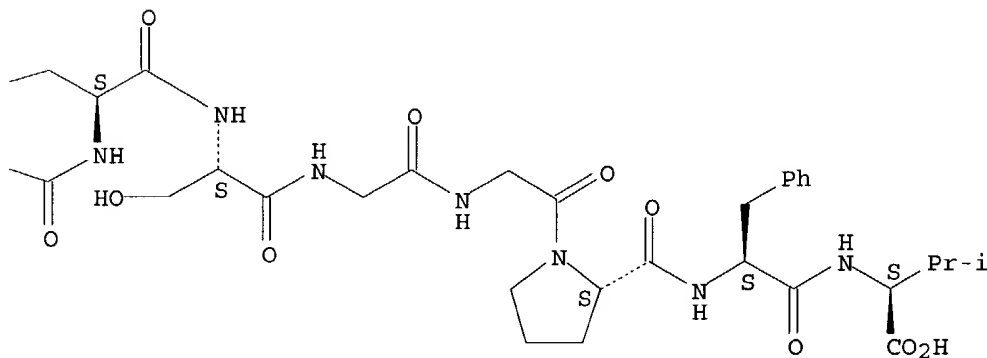
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

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4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:105322

REFERENCE 2: 139:286388

REFERENCE 3: 126:135681

REFERENCE 4: 118:116686

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L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN

RN 9002-04-4 REGISTRY

CN Thrombin (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Blood-coagulation factor II, activated  
CN Blood-coagulation factor IIa  
CN E.C. 3.4.21.5  
CN E.C. 3.4.4.13  
CN Factor IIa  
CN Thrombase  
CN Thrombin JMI  
CN Thrombin-C  
CN Thrombinar  
CN Thrombofort  
CN Thrombostat  
CN Topical  
CN Tropostasin  
DR 8050-02-0, 8059-56-1, 9014-41-9, 105881-84-3, 53028-63-0  
MF Unspecified  
CI COM, MAN  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,  
CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST,  
CIN, CSCHM, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,  
MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS\*,  
TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

16622 REFERENCES IN FILE CA (1907 TO DATE)  
854 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
16655 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133919  
REFERENCE 2: 140:127190  
REFERENCE 3: 140:126418  
REFERENCE 4: 140:125871  
REFERENCE 5: 140:125737  
REFERENCE 6: 140:125736  
REFERENCE 7: 140:124532  
REFERENCE 8: 140:122500  
REFERENCE 9: 140:122487  
REFERENCE 10: 140:122444

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L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 37259-58-8 REGISTRY  
CN Proteinase, serine (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Alcalase 3.0T  
CN Bacillus alk. serine proteinase  
CN Bactosol SI  
CN Caldolase  
CN Cerastobin  
CN Gene easter serine protease

CN Herpes simplex virus type 1 proteinase  
CN Pfu Protease S  
CN Proteinase R  
CN Proteinase T  
CN Proteins, gene easter  
CN Proteins, gene snake  
CN Prozyme 6  
CN Serine endopeptidase  
CN **Serine esterase**  
CN Serine peptidase  
CN Serine protease  
CN Serine proteinase  
CN serine proteinase  
CN Serine-type protease  
CN Seryl protease  
CN Tryase  
DR 139074-63-8, 116036-72-7  
MF Unspecified  
CI MAN  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,  
CA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, EMBASE, IFICDB,  
IFIPAT, IFIUDB, PROMT, RTECS\*, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

6261 REFERENCES IN FILE CA (1907 TO DATE)

93 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

6282 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133790  
REFERENCE 2: 140:133787  
REFERENCE 3: 140:126910  
REFERENCE 4: 140:126272  
REFERENCE 5: 140:125265  
REFERENCE 6: 140:124306  
REFERENCE 7: 140:123660  
REFERENCE 8: 140:122834  
REFERENCE 9: 140:110192  
REFERENCE 10: 140:110075

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L38 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN

RN 34346-01-5 REGISTRY

CN Propanoic acid, 2-hydroxy-, polymer with hydroxyacetic acid (9CI) (CA  
INDEX NAME)

OTHER CA INDEX NAMES:

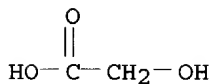
CN Acetic acid, hydroxy-, polymer with 2-hydroxypropanoic acid (9CI)

OTHER NAMES:

CN (+)-2-Hydroxypropanoic acid-hydroxyacetic acid copolymer

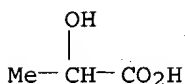
CN Alzamer Depot

CN DL-Lactic acid-glycolic acid copolymer  
 CN dl-Lactic acid-glycolic acid copolymer  
 CN dl-Lactic acid-glycolic acid polymer  
 CN GC-Membrane  
 CN Glycolic acid-DL-lactic acid copolymer  
 CN Glycolic acid-lactic acid copolymer  
 CN Glycolic acid-lactic acid polymer  
 CN Hydroxyacetic acid-(+)-2-hydroxypropanoic acid copolymer  
 CN Hydroxyacetic acid-2-hydroxypropionic acid copolymer  
 CN Hydroxyacetic acid-lactic acid copolymer  
 CN Lactic acid-glycolic acid copolymer  
 CN Lactic acid-glycolic acid polymer  
 CN PLGA 5010  
 CN PLGA 5020  
 CN Poly(DL-lactic acid-glycolic acid)  
 CN Poly(glycolic acid-co-DL-lactic acid)  
 CN Poly(glycolic acid-lactic acid)  
 CN Poly(lactic acid-glycolic acid)  
 CN Resolut  
 CN Resolut LT  
 CN Resolut ST  
 CN Resomer RG 502  
 CN Resomer RG 502H  
 CN Resomer RG 504H  
 CN Resomer RG 858  
 CN RG 502H  
 DR 59199-59-6, 66327-52-4, 153439-97-5, 265647-91-4  
 MF (C3 H6 O3 . C2 H4 O3)x  
 CI PMS, COM  
 PCT Polyester, Polyester formed  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT,  
 CAPLUS, CEN, CHEMCATS, CIN, CSCHM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA,  
 MEDLINE, TOXCENTER, USPAT2, USPATFULL  
  
 CM 1  
  
 CRN 79-14-1  
 CMF C2 H4 O3



CM 2

CRN 50-21-5  
 CMF C3 H6 O3



1677 REFERENCES IN FILE CA (1907 TO DATE)  
 35 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1686 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133773

REFERENCE 2: 140:133736  
REFERENCE 3: 140:133733  
REFERENCE 4: 140:133726  
REFERENCE 5: 140:133626  
REFERENCE 6: 140:133573  
REFERENCE 7: 140:117488  
REFERENCE 8: 140:117419  
REFERENCE 9: 140:117354  
REFERENCE 10: 140:117349

L38 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN

RN 26124-68-5 REGISTRY

CN Acetic acid, hydroxy-, homopolymer (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Glycolic acid, polyesters (8CI)

OTHER NAMES:

CN Dexon

CN Dexon (polyester)

CN Glycolic acid homopolymer

CN Glycolic acid polymer

CN Hydroxyacetic acid homopolymer

CN Hydroxyacetic acid polymer

CN Poly(glycolic acid)

CN Poly(L-glycolic acid)

MF (C2 H4 O3)x

CI PMS, COM

PCT Polyester, Polyester formed

LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,  
CAPLUS, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSChem, DIOGENES, EMBASE,  
IFICDB, IFIPAT, IFIUDB, NIOSHTIC, PIRA, PROMT, TOXCENTER, TULSA, USPAT2,  
USPATFULL

Other Sources: NDSL\*\*, TSCA\*\*

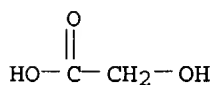
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

CRN 79-14-1

CMF C2 H4 O3



1459 REFERENCES IN FILE CA (1907 TO DATE)

52 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1467 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133898

REFERENCE 2: 140:133892



REFERENCE 3: 140:133849  
REFERENCE 4: 140:133845  
REFERENCE 5: 140:133773  
REFERENCE 6: 140:133676  
REFERENCE 7: 140:117488  
REFERENCE 8: 140:117419  
REFERENCE 9: 140:99693  
REFERENCE 10: 140:99678

L38 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN

RN 26100-51-6 REGISTRY

CN Propanoic acid, 2-hydroxy-, homopolymer (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Lactic acid, polymers (8CI)

OTHER NAMES:

CN (+)-2-Hydroxypropanoic acid homopolymer

CN (+)-Lactic acid homopolymer

CN (+)-Poly(lactic acid)

CN DL-Lactic acid homopolymer

CN DL-Lactic acid polymer

CN DL-Polylactic acid

CN Lactic acid homopolymer

CN Lactic acid polymer

CN Lactic acid, polyesters

CN Poly(dl-lactate)

CN Poly(dl-lactic acid)

CN Poly(DL-lactic acid)

CN Poly(lactic acid)

DR 31587-11-8

MF (C3 H6 O3)x

CI PMS, COM

PCT Polyester, Polyester formed

LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,  
CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, DDFU,  
DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, PIRA,  
PROMT, TOXCENTER, TULSA, USPAT2, USPATFULL, VETU

Other Sources: NDSL\*\*, TSCA\*\*

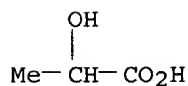
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*RELATED POLYMERS AVAILABLE WITH POLYLINK\*\*

CM 1

CRN 50-21-5

CMF C3 H6 O3



3938 REFERENCES IN FILE CA (1907 TO DATE)

139 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3969 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:133898  
REFERENCE 2: 140:133892  
REFERENCE 3: 140:133849  
REFERENCE 4: 140:133845  
REFERENCE 5: 140:133773  
REFERENCE 6: 140:133731  
REFERENCE 7: 140:133665  
REFERENCE 8: 140:133528  
REFERENCE 9: 140:129753  
REFERENCE 10: 140:129428

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